March 1929

Drug Markets

Established 1914

The Magazine of the Manufacturing Drug Trade

Editorials 219
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VOL. XXIV **DRUG MARKETS, INC.** NUMBER 3
PUBLISHERS

Publication Office, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 25 Spruce St., N. Y. City

Editor THOMAS R. FARRELL
President WILLIAMS HAYNES
Business Manager FRAZER V. SINCLAIR

PUBLISHED MONTHLY AT PITTSFIELD, MASS., SUBSCRIPTION PRICE, TWO DOLLARS A YEAR, IN ADVANCE, POSTAGE PAID TO ALL COUNTRIES; THREE WEEKS' NOTICE IS REQUIRED TO CHANGE SUBSCRIBER'S ADDRESSES, AND WHEN NOTIFYING KINDLY GIVE BOTH OLD AND NEW ADDRESSES. PRINTED BY THE SUN PRINTING COMPANY, PITTSFIELD, MASS. ENTERED AS SECOND CLASS MATTER, JANUARY 1, 1928 AT THE POST OFFICE, AT PITTSFIELD, MASS., UNDER THE ACT OF MARCH 3, 1879.

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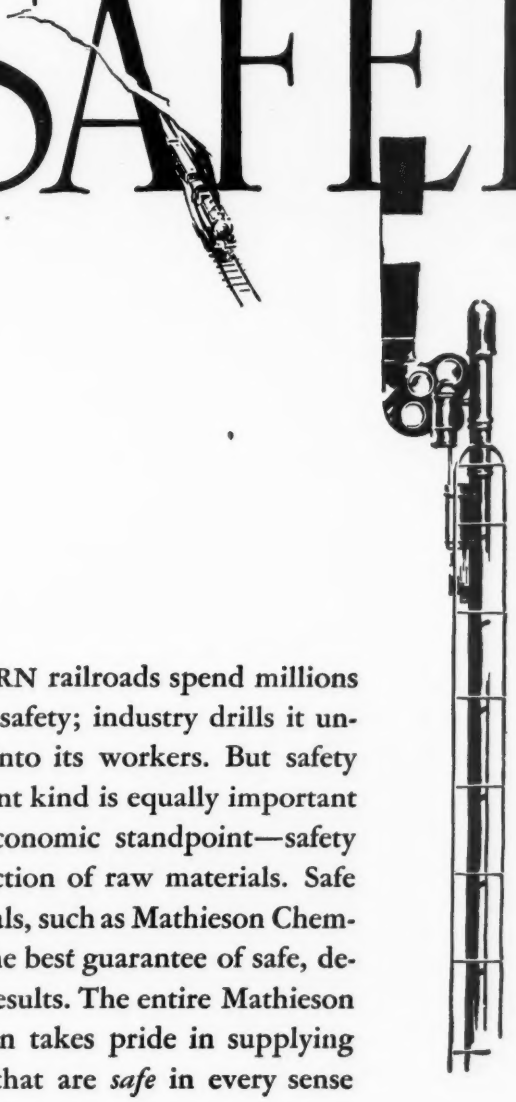
SAFETY



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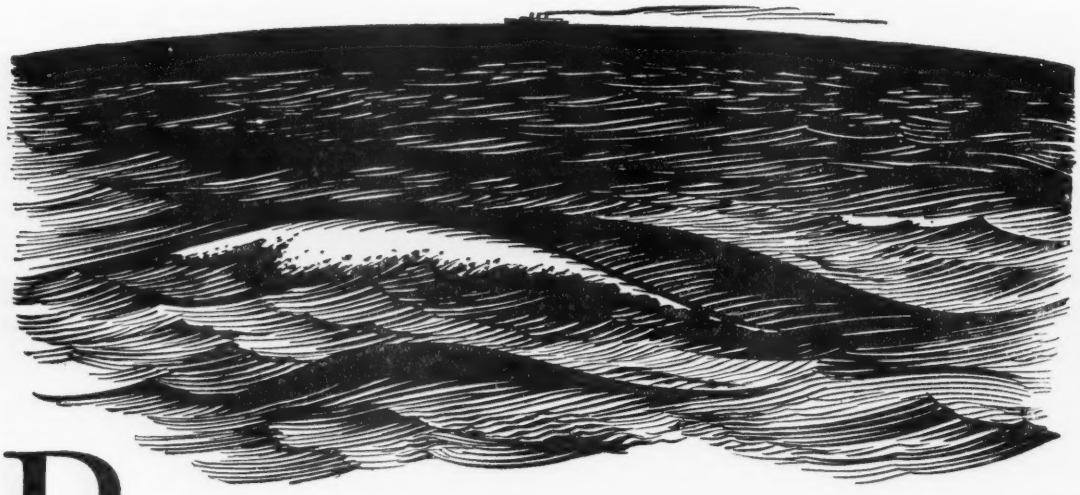

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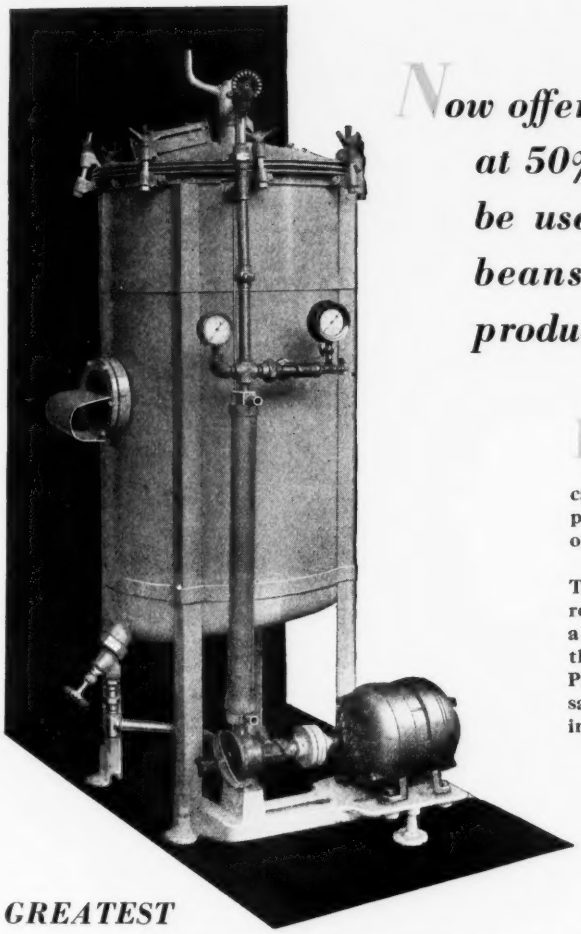

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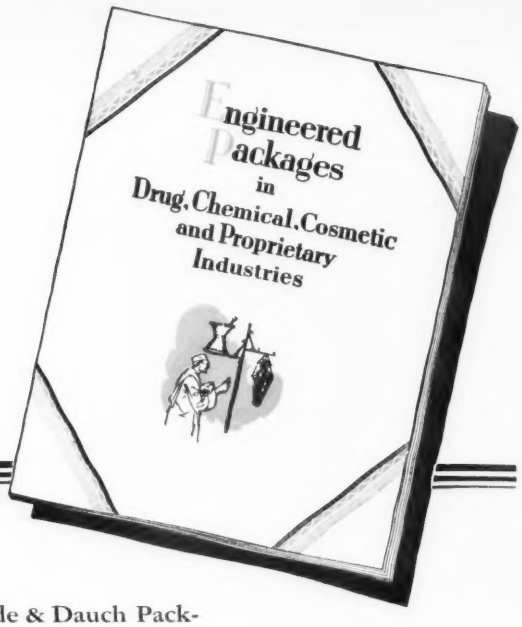

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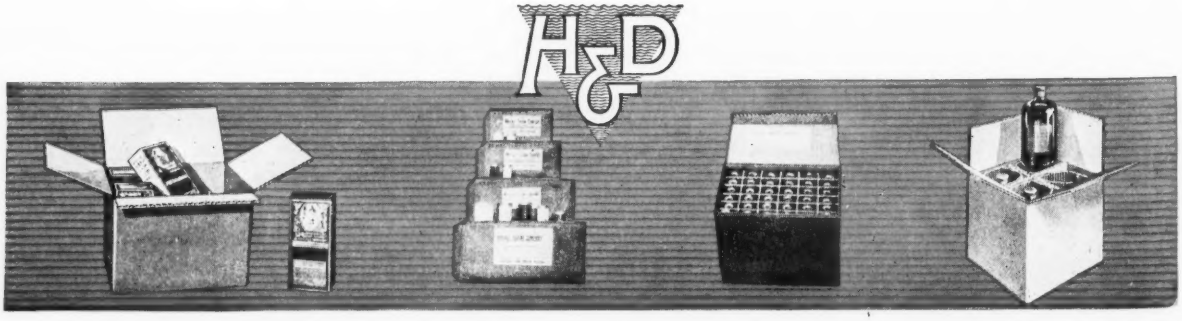

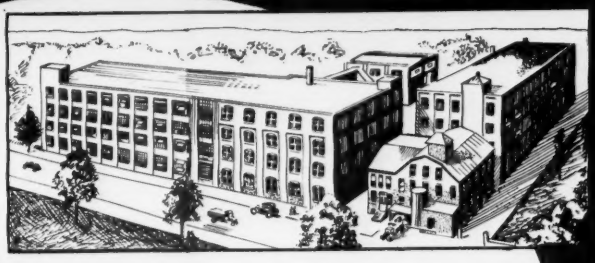

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SAINT LOUIS MONTREAL PHILADELPHIA NEW YORK

Drug Markets

Vol. XXIV MARCH 1929 No. 3

Independent?

Not everyone engaged in the drug trade has a clear conception of just how many retail drug stores there are in the country. And not very many figures are offered to help clear up the situation. For when one branch of the distribution set-up of the country says that its speaks for 50,000 "independent" retailers of the country, and there are known to be some 16,000 "independent" retailers working with another distributing branch, as well as many more in chains, there appears to be close to 70,000 of these retail outlets—both independent and otherwise.

As a matter of fact there are in the country a total of 54,000 retail stores, more or less. Of these 54,000, 3,000 are units of chains, leaving a possible 51,000 classified as "independent" retailers.

Now these 51,000 are tossed about in a very careless manner by certain analysts of the distribution problem. Those who lean toward the continuation of the service wholesaler by differently improved methods would have us believe that at least 50,000 of the 51,000 drug stores are properly classed as "independent", and that for this very reason, they should be particularly favored by the manufacturers.

In the first place only about 33,000 of these "independent" druggists are sufficiently independent financially promptly to meet their bills. Consequently, the other 17,000 of them can never be properly classed as "independent" since they must always lean on some service wholesaler for support or pass into receiver's hands. Secondly, there are just about 16,000 of the 33,000 financially independent druggists who are definitely connected with a mutual or co-operative wholesaler, and therefore only slightly less independent as regards their interests than the 17,000 who cannot pay their bills.

That leaves a total of 17,000 more druggists who are able to meet their bills promptly and are not interested in a mutual organization. And how about these druggists and their "independence?" At least 10,000 of them have agencies for a line of products manufactured by one of the leading chains, these druggists being stockholders in the chain in the same way that other druggists are stockholders in the mutuals.

This leaves a possible 7,000 truly independent retailers in the country. And by "independent" we mean druggists who are free, because of good credit standing and lack of financial interest to take their business where they will. But it is quite probable that some of the 7,000 are tied into other smaller distributive agencies, and that the amount of true independents is nothing to brag about to any manufacturer.

It's a Poor Rule....

When an amazed public first received a Gilette razor with a tube of Palmolive Shaving Cream, its enthusiastic response set a new fashion for associated merchandising. But in the light of recent events, the economic justification of such sales plans must bear the closest scrutiny. The combination offer involves—whether the manufacturer realizes it or not—the invasion of a new and unfamiliar market. If the invasion is successful, there results the disposal of a large amount of goods by a manufacturer who has only a passing interest in that market.

Far more serious in its economic possibilities, the combination offer may mean distributing at practically no cost to the buyer, a product competitive to those which have won the market only after real effort and large expenditures for advertising. However, the Gilette-Palmolive combination undoubtedly was mutually profitable. It involved two nationally known products. More Palmolive was used, and many Gilette blades began to grow dull where none was used before.

The marketing of tooth brushes, which lately has engaged the attention of several tooth paste manufacturers, was essentially different. There is no secondary benefit derived from the sale of a tooth brush, as with a razor, that would warrant the maker of a brush gazing with equinamity upon the disposal of brushes at practically no cost to the buyer. If a nationally known brand of brushes were included in such offers, the question would naturally arise as to the real value of a product so generously offered at a slight fraction of its supposed value. But where an unknown brand is offered by a manufacturer who has no financial interest in it but whose name and reputation is so well known and regarded that temporary advantages of national advertising accrue to forcing the combination offer, we may well question the justification of this policy which materially cuts down the hard won market of an independently advertised tooth brush.

At the present time we see one result of such economic pressure. A tooth brush manufacturer enters the tooth paste market in a real way. And his entering wedge to gain a foothold in this new but companionate market is in the form of a combination offer! And if reports of expected volume materialize, much hard won distribution and sales volume will slide back a little, bringing things, perhaps, to just about where they were before all this combination furor started.

The Trade Needs a Conference

Those who have studied the similarity of conditions in the drug trade and the grocery trade can readily see the reason why the drug trade could profit by a Fair Trade Practice Conference with the Federal Trade Commission and the adoption of a Code of Ethics for the trade.

Unless and until many of the abuses of fair trade employed under the name of "Sales Promotion" are abandoned by the entire trade, conditions cannot be healthy. And unless and until the various distributing branches of our trade learn and recognize their place in the trade as well as the place of the other branches, real sound economic progress can not be made.

It is for the manufacturers to lead the way and bring about the formation of a Fair Trade Practice Conference with the Federal Trade Commission.

Don't Wait for Trade-Mark Treaty

The latest Pan-American trade-mark conference gives promise of much help to drug manufacturers of this country in their trade problems in Latin-America. If the treaty drawn up is ratified by the powers represented, pirating of marks in South and Central American countries will cease as will close imitations and like methods of unfair competition which has caused our manufacturers so much expense and annoyance.

There is one phase of this problem that must not be overlooked in our optimism as to ratification and co-operation by all of the powers represented at the conference: the United States needs this treaty far more than any, or perhaps all, of the other powers involved. Also the other powers will have to change their laws to conform with ours, and in so doing will have to change the ideas and traditions of their countries with respect to trade-mark law.

We, in this country, rule that a trade-mark belongs to the first one to use it regardless of who registers it. In the Latin-American countries they rule that a trade-mark belongs to the first one who registers it regardless of who uses it. Here is a definite difference of opinion, and to change the laws our way is not going to aid the other countries much since they do very little exporting of trade-marked articles to this country.

However, if the countries represented at the conference are supported in their agreements

by the legislatures of their countries, a long forward step will result. But there is no telling how many countries will ratify the treaty or when they will do it. Also it must be remembered that each country must change its trade-mark laws to make ratification complete. For manufacturers here to expect that the treaty will aid them now or in the near future is too much. If they have any trade-marks to register they had best go ahead the old way rather than wait for something that will probably be a long time in arriving.

A Molasses Tariff

Conflict of interest is nothing new in tariff schedule making, and the strong determination of those in command to extend the benefits of the tariff as far as possible to agricultural interests is bound to bring many more conflicts than ever. At the present time the agricultural interests are very busily engaged in attempting to have blackstrap molasses from Cuba made subject to a tariff.

Understand there is no question of protecting any home sugar industry by this move. Nor is there any question of developing one. It is merely due to the fact that if molasses cost more, the corn in this country could economically be used as the raw material for our industrial alcohol instead of the imported blackstrap molasses. It just so happens that the famous "exportable surplus" of corn is about equal to the amount necessary to produce all our industrial alcohol.

Quite aside from the justice or injustice of aiding the farmer at the expense of industry, there are two very real reasons why this tariff—if it is applied—will never do the job it is expected to do.

In the first place molasses is a by-product in Cuba that must be gotten rid of. There is a law against dumping it in the sea. In the past it was sold at two cents per gallon. It can easily be sold at that price again. At such a price only an abnormally high tariff would keep it out.

In the second place the price of alcohol cannot be continually advanced and consumption not be curtailed. Molasses has been constantly advanced in price resulting in an advance in alcohol quotations. To make alcohol from corn would advance the price by upwards of ten cents per gallon above where it now is. With such advances, substitutes for alcohol both as an anti-freeze and as a solvent are bound to make real progress to the detriment of alcohol consumption.

Another fact that must not be lost sight of is that alcohol producers will have to face a heavy investment in changing over their plants to accommodate grain, and that the plants along the seaboard do not have to pay a freight rate on molasses but will on grain. Both of these added costs will be paid for by the consumer.

Lining Up the Wholesaler

Further lining up of the service wholesalers into groups designed to effect economies and more efficient results has occurred in the extending of the activities of the Druggists' Supply Corporation. This organization is now to be the purchasing agent for a number of the independent wholesalers of the country. These wholesalers are to continue to operate and be owned independently. The co-operation among the group will come in the matter of purchases only. This is the application of the scheme that was attempted last Fall by Brunswig at Atlanta, and more recently by Charles L. Huisking.

Thus in the McKesson & Robbins Company we have a chain wholesalers, while in the new group we have a mutual organization among wholesalers. Doubtless there are advantages to both of these two types of organizations, and disadvantages to both just as there are in the retail field. But if both are conducted along the proper lines there is no reason why both should not grow to places of real importance in drug distribution despite the changing conditions.

In a chain of wholesalers there is the possibility of unity of purpose and unity of operation by command. In the co-operative or mutual type the unity of operation must assume the position of leadership rather than of command. The chain creates its own personality which, after all, is rather impersonal to those at a distance from the home office. The co-operative is a house of many personalities—one for each of the separate branches.

The drug trade is plenty large enough for wholesalers to experiment. Too bad more experimenting did not take place years ago. However, early or late, we wish the wholesalers success in their efforts to better their own conditions, because surely success among them will mean increased success among the manufacturers.

Cod Liver Oil Value

The acuteness of the weak condition of the cod liver oil market is an unsatisfactory state of affairs from the point of view of the consumer of the oil as well as from the point of view of the seller. While those buyers of the oil who have carried large stocks of the oil probably regret their purchases, they will suffer no real loss if the oil is passed into consumption with a standard price for the retail goods.

The danger of the present condition, however, is in its effect upon the cod liver oil producing industry throughout the world. The recent high market stimulated production only too well as the present prices indicate. However, there is grave possibility that the present condition will cause many producers to be forced out of the market, bringing a short crop and abnormally high prices next year or the succeeding year.

The consumption of cod liver oil has shown a tremendous increase during recent years. The supply to satisfy this demand has come only in response to the high prices. Just how low prices can go and this demand be filled has never been determined. There is real danger in an attempt on the part of the drug industry to see just how low they can force the market for they will be sure to foot the bill in succeeding years if they force it lower than true values can stand.

More Comprehensive Markets

We have revised our method of reporting market conditions to change it to a monthly review giving all the information that has become available during the month past. In so doing it has become necessary to devote more space to the monthly material and to drop some of the back prices that were carried in the past.

However, we do not feel that the buyer has been sacrificed anything of importance. The prices of 1914, we believe, are meaningless to-day except as curiosities. The high and low of the past two years together with the high and low of the current year, we believe, will be sufficient guide to the probable limits of any market.

Furthermore, the wider column gives us an opportunity to make use of price and import charts which will in a graphic way supplement the statistics and opinions given. We feel that these reports, while not touching on so many specific items each month, will be far more comprehensive and far more full of real information than ever before. Just because an item that you buy is not mentioned this month is not to mean that we are not watching its market position. If it is not mentioned, the chances are that it is not likely to change its position for some time to come.

Following the use of artificial sunlight in the treatment of King George V, equipment of a similar character has been purchased by the U. S. Congress for the use of its members.

In fairness to our industry, and in order to avoid any suggestion of unduly favoring certain manufacturers, Congress should arrange for the regular dispensing of cod liver to its members.

{ *Ten Years Ago* }

(From our pages March 1919)

The Japanese Government has decided to abolish the opium monopoly in the province of Kwangtung and at Tsingtao, China, and on the island of Formosa. The newspapers commend this action as the removal of another source of friction between natives and foreigners in China.

Lehn & Fink, New York, are having plans completed for the proposed new addition to their works at Irving and Columbia Street, Brooklyn. The structure will be eight-story, reinforced concrete, about 40 x 100 ft. Buchman & Kahn, 56 West Forty-fifth street, are architects.

Detectives of the Narcotic Squad of the Police Department, New York, have rounded up four men in connection with a $12,000 theft of codeine sulphate, stolen from Powers-Weightman-Rosengarten's New York branch, 145 Front street, which was robbed a month ago of 1,039 ounces of the narcotic.

Theodore Ricksecker, retired president of the Theodore Ricksecker Perfume Manufacturing Company died this week at his home, 61 South Burnett street, East Orange, N. J. Mr. Ricksecker, who was seventy-three years old, was one of the founders of the Perfumers' Association of America.

The Meyer Brothers Drug Co., St. Louis, announces that the company has opened a permanent office at 101 Beekman street, New York, to handle its increasing business in the East. Robert A. Hevenor is in charge.

United Drug Co. was acquited by the Federal Trade Commission of complaint of unfair competition by the Liggett Company in its "One Cent Sales."

Winthrop Chemical Co., Manhattan, was incorporated with capital of $250,000. C. B. Fernald, H. H. Rasay, E. R. Early 120 Broadway, New York.

The Caldwell Syrup Pepsin Co., Monticello, Ill., has awarded building contracts for the construction of a new four-story and basement manufacturing plant at a cost of $75,000.

The Melba Mfg. Company, Chicago, manufacturer of cosmetics, chemicals, etc., will build a three-story addition to its plant, about 66 x 66 ft., to cost $20,000.

The Mentholatum Company, Buffalo, N. Y., is having plans completed for its proposed new plant on Niagara Street, estimated to cost $75,000.

The Ten-Cent Tooth Pastes

What is the Real Place of THE 10-CENT PACKAGE?

By Charles G. Muller

A COMPARATIVELY new field of merchandising has been opened within the past few years. Upwards of 50 manufacturers of nationally advertised drug products already are in it, and many others are giving it serious consideration. It is the field of 10c packages of standard goods, and the questions to be answered before plunging into it are many.

In an effort to survey the experiences of producers who to-day are distributing their trade-marked toothpastes, creams, lotions, soaps, razors and blades in packages retailing for 10c either through Five-and-Ten-Cent stores or regular drug channels, DRUG MARKETS sent a questionnaire to a selected list of the most prominent of these manufacturers asking for their experiences and their opinions as to the value of this type of distribution and its effect on their standard packages.

What follows is a summing up of these experiences and opinions, so arranged as to cover the most important questions which any drug manufacturer would want to have answered before entering this new merchandising field. DRUG MARKETS specifically stated that names would not be used, and therefore answers have been very frankly given.

Let us look over the four major questions asked and their answers before drawing six specific conclusions about 10c package sales.

Do you look upon distribution of 10c packages purely as sampling or do you consider it also on a straight sales basis ? was the first question.

Three manufacturers declared for straight sales to every one who looked upon his 10c packages as glorified sampling. Here are a few comments of the former. "Distribution through chain stores is considered on a straight sales basis, though there is, of

course, an advertising feature connected through the distribution of this size to a larger number of people and through prominent displays on counters."

"Originally, we expected the distribution of small sizes through Ten-Cent stores to be of much value for sampling purposes, but we find instead that many people have been buying the 10c sizes instead of our regular sizes in drug and department stores."

"At one time the 10c item of a higher priced toilet preparation was looked upon as a good form of sampling in the Ten-Cent stores. However, we believe this view is not held to-day, it being considered a straight sales item covering an entirely different field from that which the sale of the higher-priced package enjoys."

Those who look to their small packages primarily for sampling distribution say: "We consider our 10c sales to be mostly a sampling proposition. Of course some go to people who never would spend more than 10 cents for an item, but we do not consider that such 10c sales in any way conflict with sales of our larger package through the regular drug and department store channels."

No Profit Necessary

Another manufacturer, preparing to add half a dozen items to the line he now has in 10c packages says: "If we did not make a nickel a year on our 10c packages we still would be interested in them for their sampling value. As it is, the tremendous volume we get on these small packages brings us a profit in addition to the sampling benefits."

Do you consider the increasing sales of the 10-cent size will affect regular volume of your large sizes? was the second question.

One manufacturer was uncertain as to results, but the others were very definite in their opinions. "Increased sale of the 10c size will have a tendency to increase the volume of the larger. Habits are formed through the use of the small size, and the user will buy the larger tube in the nearest drug store." Again: "Small package sales will increase sales of the regular package just as other sampling does. This distribution does not cut down demand for larger packages unless the normal purchase should be in the 10c size. Our own sales of standard sizes never went up at such a rate as they have since we went into the Ten-Cent stores with small packages."

Only one manufacturer answered this question negatively, and he very firmly believes that increasing volume of small package sales will effect regular volume of standard packages.

No Relation to Standard Size

But between these two viewpoints was one held by the majority. This was, that there is no connection whatever between sales of small and of standard sizes —an opinion in keeping with the majority opinion that small packages offer a straight sales, rather than a sampling, market. As:

"We do not consider that increasing volume of the 10c size will affect regular volume, since Five-and-Ten-Cent store sales have been known to show one trend while sales of standard sizes have shown an entirely different trend. There does not seem to be any direct collaboration between them."

And: "We do not believe that the sale of a 10c size either increases or decreases the volume of business on a 25c, 50c or $1.00 size. Nor, at the present time, do we believe the chain drug stores, the wholesalers or even the independent retailers look upon the sale of a 10c package in the Five-and-Ten-Cent store as detrimental to the sale of 25c, 50c or $1.00 packages through their own stores."

Examples of Combination Offers in 10-Cent Size

Have you had, to the sales of the 10c size through Five-and-Ten-Cent stores, any unfavorable reaction from chain drug stores, wholesalers or independent retailers? was question number three.

The answer to this was an almost unanimously "No." "In the early days retailers and wholesalers put up a big howl when items were sold through the chain stores at 10c. We believe this feeling does not exist any more except in a few isolated instances, and then entirely on the part of independent retailers."

"Out of the fifty odd thousand drug stores in the country, we have heard from none of them since we put out the 10c sizes in variety stores a year ago, with the exception of maybe five or six. Of these five or six, one or two claim to be in districts where 10c items are saleable while full sizes are not."

One manufacturer, with approximately 600 items in retail stores, sums up the answer to this question very fully: "When we decided on a 10c package for the variety stores, we felt we could not afford to offend our regular dealers and so must clear their minds of any antagonism. Accordingly, we went to executives of state and national retail drug associations and got personal assurance that these men would put the 10c story before druggists in its true light. Which was that the real picture of the 10c package is one of 'discriminating sampling' and that

Do you market ten-cent packages as samples? As straight merchandise? As both? Could you profit on your ten-cent goods if they were sold through the regular drug trade channels with wholesaler's discounts, etc? These are some of the questions that have been answered by the leading sellers through the ten-cent stores.

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people will not buy the 10c package any longer than they have to."

If a retail drug store should decide to open a 10c counter, would you consider this a business builder linking up sample distribution with sales of full size or as likely to cut the sale of the large size ? was the fourth question.

Here there was no doubt as to majority opinion, which was that sale of small sizes in drug stores is not wise. Many objections were raised.

Should Druggists Have 10-Cent Counter ?

"A number of retail drug stores have put in 10c counters," says one manufacturer. "Most of these have been discontinued as 10c items are unprofitable from the druggist's standpoint and do not give him volume."

"We believe small sizes would materially reduce sales of regular packages when placed in the same store. We believe the druggist will reduce sales of packages in every line that furnishes small sizes."

"If large volume develops on the 10c size, it is likely to cut into the sale of larger sizes."

"We believe it would be an error for the drug store to open a 10c counter for the sale of toilet articles. The public that goes in and out of the drug store is not looking for 10c goods any more than the trade that goes through a Five-and-Ten-Cent store is looking for items to purchase at 50c and $1.00. The Five-and-Ten-Cent store is a business unto itself and might even be looked upon to be as foreign to the drug store as would be a hardware or a grocery store. The two businesses are separate and distinct and have no bearing on each other. Strictly speaking, we think that the drug store should continue to sell the 25c, 50c and $1.00 toilet items and leave entirely alone the business that goes through the Five-and-Ten-Cent store."

"We offer our 10c size to our regular trade as well as the chain stores, but we think the retailer would be foolish to try to compete with the chain stores on this type of business. Chain stores are set up to fill orders and they have low-priced girls behind the counters who do nothing but wrap up packages and give change, whereas drug stores set up to sell high-priced articles. Drug stores cannot compete on an item that offers so little profit per unit."

Those who consider the 10c packages as having primarily a sampling distribution are of the opinion that druggists can profitably open a 10c counter. "In some cases, the druggist who does not do so is not looking out for his own business. There is a vast market of consumers who, on small salaries, buy standard items. When they are pinched, they will take 10c sizes of these items to tide them over, and the druggist who sends them to the Five-and-Ten-Cent store is losing good trade. The retail answer to the problem is to have a 10c counter, similar to one I have seen in St. Louis.

A group of 10c sizes of skin lotions

"I watched a man pick up a bottle of mouthwash, hand 10 cents to the cashier and walk out. There was no service, no wrapping, and practically no overhead. The owner of the store told me he made three cents on that 10c sale whereas if he had sold the standard size at 59 cents he would have lost three cents. In some locations, though perhaps not in many others, the druggist could profitably set out a 10c counter, for on such items people do not expect service and neither do they expect cut prices—which is a big point. On top of this, sales can be made in volume by following the variety store practice of selling toilet goods in dozen lots to customers for week-end use in guest rooms."

Two of the manufacturers who state that a 10c drug store counter would be an error, make plain, however, that such a counter would not "interfere with the sale of the 25c, 50c and $1.00 sizes."

Says one: "We have noted that in the Five-Cent-to-Dollar stores where our 10c package is on sale together with our 50c and $1.00 size, sales per store of the 10c size are smaller than those in the Five-and-Ten-Cent stores where our larger packages are not on sale. Such a result seems natural when you consider that our 10c package retails for 10c whereas our 50c package generally retails for about 40c and our $1.00 package retails for about 79 cents."

From these opinions, and from additional personal interviews with other manufacturers, with a represen-

tative of one of the prominent Five-and-Ten-Cent stores, and with several retail druggists, let us see if we can draw a few definite conclusions.

(1) One or two can be drawn very quickly. The first is that Five-and-Ten-Cent stores welcome the small package of the manufacturer who through national advertising has built up prestige and goodwill for his product. For this prestige lends a great deal to the store counter, the appearance on that counter of a well-known package putting confidence into the store's customer. The security of a manufacturer's reputation appears to be something the Ten-Cent store is glad to get

(2) Second, if the 10c package is looked upon as a sampling proposition, it does a good job, in the opinion of those manufacturers who look on it as such. If it is considered on a straight sales basis, it seems also to do a good job, according to the producers who regard it in the second light, for only one of these manufacturers registers disappointment in 10c package merchandising. He says: "After having sold several millions of the small packages to the chains, if we knew at the time we started to sell them the 10c sizes what we know to-day, we would not have sold them. And we are seriously considering discontinuing."

Proportion to Standard Important

(3) A third general conclusion is that one of the biggest monkey wrenches the manufacturer can throw into the 10c package sales machinery is to make his small package larger in proportion than his standard. According to a very prominent producer, "one of the faults of the Ten-Cent store business is that the manufacturer of a 25c, 50c or $1.00 size item is forced to give a greater quantity of goods in the 10c size than he does in proportion to his larger sizes. It is my understanding, for example, that a 50c toothpaste that has kept out of the Ten-Cent stores until recently is now being marketed in a 10c size, three of which packages are equivalent to the 50c tube as far as the paste itself is concerned." Several other toilet items unquestionably offer more for a dime than they do in larger sizes. Which causes a good deal of grief.

However, where manufacturers have looked to the 10c packages primarily to do a sampling job and have made the package in proper proportion to standard sizes, general satisfaction is expressed. "Our 10c package is 1-5 of the 50c package and we could not increase it beyond that size for, after all, our money is made from the larger sizes and we would do nothing to jeopardize their sale." Another manufacturer, very favorable toward the sampling idea and well pleased with returns from chain sales, makes his small package an exact duplicate of the standard in appearance and fills it in exact proportion to price. "Despite the fact that my wholesale price on the small package does not always meet with the approval of the variety stores," he says, "I stick to it, do not increase the proportion of contents, and get into these stores because of the product's prestige."

Simply, if the proper proportion is strictly adhered to, results prove satisfactory.

Cut Price Probabilities

(4) Which leads us quite logically to a fourth conclusion. Which is, that cut prices are avoided in 10c packages, particularly where the right content proportion is maintained. Several factors account for this. One is that most manufacturers, getting the volume they want from variety stores and believing regular retail stores to be proper outlets for standard sizes only, do not sell their 10c packages through regular channels. Another is that most retailers are not interested in handling the 10c size at all and so do not cut the Ten-Cent store prices. Still another factor is that any retailer who does stock 10c packages makes so little margin that to cut would be ruinous. Too, few retailers have yet come to look upon the 10c size as bait to bring customers into their stores, and so do not cut.

Druggists 10-Cent Counter Not Favored

(5) A fifth conclusion is that neither manufacturers nor dealers look with favor on the idea of a 10-cent counter in the retail drug store. While one or two producers feel that the idea would profit the dealer, the retailers themselves invariably shake their heads at the suggestion. One, who is very progressive, declares people do not come to his store for 10c items. Another, who tried such a counter in the center of his shop for two months, found that, though some of the 10c items gave proportionately more content than the standard sizes, people preferred to buy the larger packages. He gave up his counter, and he declares that many other druggists of his acquaintance did the same.

It is not wise, however, to pass over this point too fast, even though the majority of retailers and producers look unfavorably on a 10c retail counter. For the experience of a prominent Five-and-Ten-Cent chain shows that another industry that scorned small sizes years ago now is fighting hard to win back lost business. This is the field of notions. When, years ago, the Ten-Cent stores were looking around for likely lines to push, they found that department stores were so busy trying to make large unit sales in rugs and similar items that no attention was given to such minor, low-priced merchandise as notions which might well have been used to attract trade to the large stores and which would have been a nucleus on which to build good-will for the stores. The variety chains took hold of notions, pushed hard, and to-day have such a grip on them and on customers who learned to come to the variety stores for this type of merchandise, that few department stores have been able to regain this profitable market.

It may very well be that proper study in how to sell goods from a 10c counter operating under minimum

(Continued on page 306)

Strength Coming to POTASSIUM IODIDE?

PERHAPS the selling of potassium iodide at or below what should be the cost will soon cease," remarked a seller of this important commodity within the past month. "The Prohibition Department has really taken some steps to regulate the sale of tincture of iodine in bottles, and this will remove the main cause."

And thereby hangs a tale which for a long time has been common knowledge among those making and selling iodine, potassium iodide, and tincture of iodine. The recovery, for illegitimate use of the alcohol from tincture of iodine leaves a sludge consisting of iodine and potassium iodide. This sludge has sold as is. The purchase of this sludge has made possible the production of real cheap potassium iodide. Hence the continued sale of potassium iodide below the apparent cost, or below the cost of those producers who have bought prime iodine for its manufacture.

Long selling at a loss to producers as a result of the illegitimate use of tincture of iodine to reclaim beverage alcohol, Potassium Iodide seems on a fair way to price parity. However, action by the Prohibition Department has failed in the past, and the new steps taken might also fail to produce the desired result.

Of course the sale of tincture of iodine by a producer, and then the purchase by the same manufacturer of this sludge has not been indulged in, as such tactics might lead to the proof of a charge of conspiracy to defeat the aims of the prohibition amendment—a difficult charge to prove but a dangerous one if proven. Rather the tincture has been bought from a producer by an alcohol reclaimer, and then, after the alcohol has been removed, disposed of by this reclaimer to another producer of tincture, or to a producer of potassium iodide. The purchaser of this sludge has the choice of either making it into tincture again, or of converting it all into potassium iodide.

If all the sludge available was reconverted into tincture, the potassium iodide manufacturer's market price might remain steady and firm even though he only sold a small proportion of the potassium iodide that went into tincture production. And since the circle through which the sludge would be traveling would not represent actual consumption of potassium iodide, but would only represent an added volume of business that existed for no other purpose than to dispose of alcohol in an illegitimate manner, the potassium iodide producer would have no complaint from a purely business angle. He would be selling his share of the normal consumption of the product at the proper price.

But because this sludge travels different paths and enters into direct competition with the iodide that is sold for legitimate consumption, and through this competition drags the price of the iodide down to a point that spells losses for all producers of the iodide, the matter has a real business angle to it. Furthermore, the manufacturers of potassium iodide are very much concerned that their business should be ruined by failure to close up this outlet for alcohol.

Many of these manufacturers have been producing potassium iodide and selling it in a legitimate manner for many years. Naturally they have been making a profit from this business. Now they must continue to sell, but they can make no profit, and in many cases are losing money. They do not want to be forced out of the market through no fault of their own, but rather through failure on the part of the government enforcement department to protect their interests by more rigid enforcement.

An unsuccessful attempt to control the situation was made over a year ago by the Prohibition Department when the sale of tincture in fifty gallon drums was restricted by new regulations. The restrictions stated that only one fifty gallon drum per month should be sold to any one buyer. To sell a buyer any more than one drum per month, the seller must get permission of the Prohibition Department in Washington.

However, no restrictions were thrown around the sale of gallon bottles. While the cost of tincture in bottles is slightly higher than in drums, this does not bother the man who is buying tincture to recover alcohol. Consequently inquiries for 1,500 gallon

bottles of tincture of iodine in one lot were not uncommon. These orders would be larger if the buyer dared, and they were also quite frequent.

Consequently, the Prohibition Department has at last turned its attention to control of the sale of the gallon bottles, and is understood to have warned sellers of the tincture to watch their step when selling bottles. In other words, they are not to sell one buyer more than fifty gallon bottles per month. This places the same restriction upon bottles as has been in effect upon drums, which is as it should be.

The effect of the increased activity of the Prohibition Department in controlling tincture of iodine recently came to light when an individual in the drug trade said, "I have sold quite large amounts of sludge from tincture of iodine to a certain source. The last time I offered them some, however, they told me that they were not buying the product any more. I could find no other buyer in this country, so I was forced to export the product, which I did."

So perhaps, some foreign country will obtain cheaper tincture or potassium iodide partly paid for by this country's consumers of illegitimate alcohol one cent beverages.

No Profit in Iodide

To show the true conditions in the potassium iodide market to-day, the quoted price is $3.50 @ $3.55 per pound for ordinary lots. There is an inside price for larger buyers that shades this price.

The cost of iodine from the representatives of the Chilean producers ranges from 1s to 1s 3d per ounce. At present rate of exchange this gives the lowest price a value here of $3.88 per pound—and this is what the producers of potassium iodide are paying. There is no other place to buy iodine as cheaply, and all pay the same price.

Only One Iodine Price

Figuring the cost of the iodine contained in a pound of potassium iodide on a cost basis of iodine at $3.88 per pound, we find that this raw material costs $2.95 per pound. Other raw materials cost an additional seven or eight cents per pound of potassium iodide, bringing the total raw material cost of the finished product up to about $3.03 per pound, for a theoretical yield. The actual raw material cost is higher than this since there are losses.

To the raw material cost must be added the processing, and includes labor, apparatus, steam, depreciation, etc., cost which varies in different plants. To this must be added the packing and shipping costs; the cost of shipping and stocking at various points; the subdividing and repacking at many of these distribution points; the cost of selling (salesmen's commissions etc.) the overhead; and finally the profit.

One manufacturer has figured the cost accurately and states that an additional 50 or 75 cents, according to the producer, must be added to the raw material cost to arrive at a selling price that will assure the maker of an even break and perhaps some profit.

There seems to be a general feeling among producers of the iodide that conditions are about to improve and that prices will shortly be on a basis that will bring new spirit to those producers who were about to quit production of the product.

Milk of Magnesia on Trial in Cuba

The Charles H. Phillips Chemical Co. is fighting to retain its trade mark rights in Cuba, and the "Heraldo Farmaceutico" has the following to say:

"It is curious how in its original country, United States, the Chas. H. Phillips Co., cannot avoid the manufacture and sale of Milk of Magnesia, as they pretend to do in this country; and a large number of manufacturers among whom are highly reputable firms such as Parke, Davis & Co., Sharp & Dohme, McKesson & Robins, Norwich Pharmacal Co., have this preparation in the market under such denomination.

"And it is more curious that the American Druggists' Syndicate, very closely allied with the Chas. H. Phillips Co., both concerns involved in the recent huge merger under the Liggett's or United Drug Co., organization, has a Milk of Magnesia, the sale of which seems to be compatible with the interests of the other concern.

"For a long time Cuban manufacturers have been kept, by threatening them with legal prosecution, from labeling under such name, and they had to adopt those of 'Cream' and 'Magma' of Magnesia, until the Martinez-Dominguez Laboratory refused to change the name that, being an official denomination of the Pharmacopoea, and of common use for many years, should no longer be of private use as a trade mark.

"As a consequence, legal proceedings were started, to which claims for damages followed, and it is now expected that the court will finally decide in favor of the defendant, declaring that the name, 'Milk of Magnesia' be of free use for all. The case will soon come to trial and there is quite some interest to know the final decision on this matter, that is of main interest for the drug trade."

New Official Food Colors

Two new food colors, created by Warner Jenkinson Co., have been approved by the Food, Drug & Insecticide Administration in a statement made as follows:

"These colors, which will be known as Buttercup Yellow and Ponceau S. X., have been tested both chemically and physiologically and found them to be harmless to health and otherwise suitable for food use."

The Food, Drug and Insecticide Administration, United States Department of Agriculture, has moved from 641 Washington st. to the new Appraiser's Stores Building, at 201 Varick st., New York.

The Trade-Mark Treaty

Many real benefits will accrue from this treaty, says Mr. Langner, whose whole time is spent in securing and protecting American-owned foreign trade-marks. No longer will the American drug manufacturer be subject to piratical registration of trade-marks in Latin-America, and no longer will he be subject to gross imitation in these countries without real redress.

By Lawrence Langner

MANY important advantages will be derived by American exporters from the treaty signed recently at the Pan-American Trade-Mark Conference in Washington. In my opinion this conference marks the greatest step forward yet taken in connection with international protection of trade-marks and the repression of infringements and unfair competition.

From the standpoint of the American exporter, the most far-reaching feature of the convention was the adoption of what might be called a decalogue on the subject of international unfair competition that might well become the Magna Carta of the world in this connection. As most exporters have found to their cost, in addition to the piracy of trade-marks, there is the nuisance of imitation of products by dishonest traders which, while it does not exactly infringe the trade-mark, comes as close to it as possible without constituting infringement. Both this and the actual piracy of marks are adequately dealt with in the new convention.

Manufacturers of drugs who are in the export markets are very familiar with the type of unfair competition which consists in imitating the shapes of bottles, the color of packages, etc., but instead of actually infringing the trade-mark, another trade-mark is used of about the same size or color, which is entirely different from the registered trade-mark of the owner of the original goods. The native "pirate" thus gets the benefit of the manufacturer's good will, especially in dealing with ignorant persons who cannot read and who are easily persuaded to buy one bottle which looks like another.

For the first time in the history of international jurisprudence, a definition of unfair competition is given, and specific acts are recited as illustrative of what constitutes unfair competition. This definition, which is embodied in Article 20, says that unfair competition is "every act or deed contrary to commercial good faith or to the normal and honorable development of industrial or business activities."

Among the acts of unfair competition which are specifically prohibited by Article 21, are acts which are calculated, directly or indirectly, to represent that the goods of one concern are the goods of another, whether by appropriation or simulation of trade-marks, symbols, distinctive names, or what is more important, the imitation of labels, wrappers, containers, commercial names or other means of identification. The far-reaching effect of the treaty is indicated by the fact that, not only is this type of unfair competition prohibited, but it is also expressly prohibited to get up the goods in such a way as to suggest that the goods are a product of one country, when they are actually the product of another country.

The treaty has teeth in it with respect to the enforcement of the repression of unfair competition. If, according to Article 22, there is no law of unfair competition in a country, the penalties which apply under the trade-mark laws can be invoked. Since most of the Latin-American countries do not possess laws covering unfair competition, but have very

strong trade-mark laws, the effect of the new convention will be to write a fair and equitable law of unfair competition all over the face of the Western Hemisphere. This proves conclusively the wisdom of having had trade-marks experts prepare the treaty, instead of members of the diplomatic forces of the various countries. Former treaties have been prepared by members of these offices.

Credit Due Delegates

In this connection, the greatest appreciation must be expressed to the delegates of the various countries of Latin-America, as well as the U. S. delegates, in their obvious appreciation of the broad problems involved in making a treaty of this character, which indicates that a helpful spirit of co-operation must have been present. The American delegation, which included the Commissioner of Patents, Hon. Thomas E. Robertson, as well as Hon. Francis White, Assistant Secretary of State, has done a fine piece of drafting work, but the greatest credit should go to Edward S. Rogers, the third U. S. delegate, who has made a special study of international trade-mark problems, and is chairman of the Patents and Trade-marks Committee of the International Chamber of Commerce. Many of the excellent provisions which are written into the new treaty are obviously his handiwork.

One of the greatest nuisances which has disturbed all exporters has been the necessity of marking labels differently for the different countries of destination. For instance, a special trade-mark label has been required for Mexico. Under Article 13, if goods are of foreign origin and carry the words or indications legally used in the country of origin—"Registered U. S. Trade-Mark," for instance—it will be considered that the goods comply with the requirements of other countries. This obviates the need of having special labels printed.

Slight Changes Won't Matter

Again, under the existing system, if a trade-mark is slightly changed, re-registration becomes necessary in some countries. Under Article 13, the use of a trade-mark in a form different in minor or non-substantial elements from the form in which it was registered does not entail forfeiture or impair the mark.

The long-discussed question of piracy has been dealt with effectively both in the main treaty and in the protocol. Under Article 8 of the treaty, if a trade-mark is pirated in one country, the owner of the mark in another country can obtain cancellation of it if he proves that he owns the mark in the latter country, and that the person who has pirated it had knowledge of the owner's use, enjoyment, or registration of it for the same goods. Alternatively, the owner can obtain cancellation of the pirated mark if he can show that he circulated the goods in the country of the "pirate" before the latter filed it.

Perhaps the greatest boon to exporters in all countries, however, is the fact that where an agent, representative, or customer pirates the trade-mark, the real owner of the mark has the right to demand its cancellation or refusal. In addition the barrier to obtaining the registration of trade-marks is removed in two ways. The first is by allowing the registrant to base his foreign registration on registration in any country that is a party to the convention, instead of limiting such marks to the scope and duration of a "home" registration.

The second way is through the Inter-American Trade-Mark Office, at Havana, which will offer an international medium for effecting registration. The former defect of the treaty which prevented the appointment of attorneys in the various countries to represent the interests of the trade-mark owners, is eliminated under the new treaty.

By dividing the treaty into two parts, those countries which do not desire to accept the Inter-American Bureau, at Havana, need not do so, but can, nevertheless, participate in the benefits of the general treaty. The latter provides for the protection of trade-marks, the protection of trade names, the repression of unfair competition, and the repression of false indications of geographical origin or source. The protocol relates to the Inter-American Trade-Mark Office and provides for improvements in the method of conducting it.

Merrell Lectures on Detoxification

Mr. Donald Merrell, Director of the Dental Department and Advertising Manager of The Wm. S. Merrell Co., recently returned to his office after an extended lecture tour in Canada.

His itinerary included the following institutions: Royal College of Dental Surgeons, members of the faculty: Toronto Dental Society, group of members; Toronto Pharmacal Co., and Toronto Dental Co., representatives.

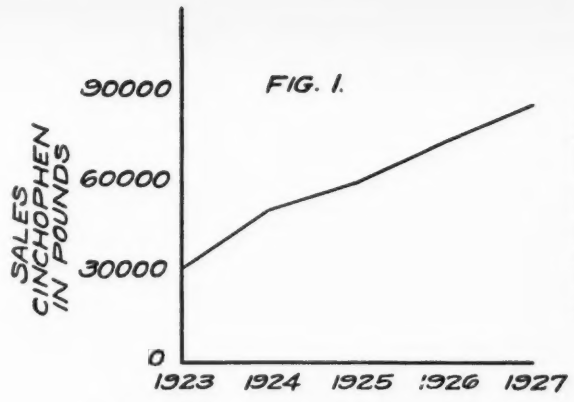
At Montreal, Mr. Merrell addressed the faculty of Laval University; the Dental College of the University of Montreal; and the graduate dentists of McGill University at the Mt. Royal Hotel.

His lectures and demonstrations on Detoxification were received with enthusiasm by each group he addressed.

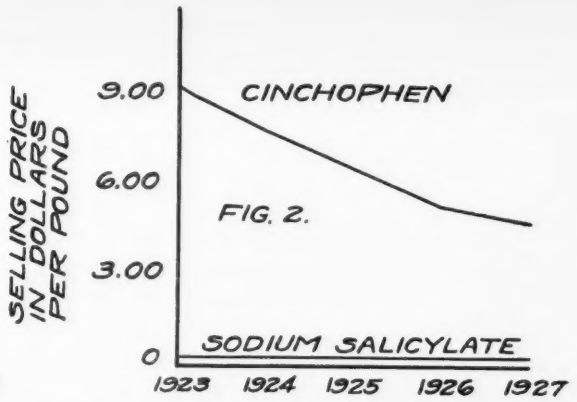
Drug Chain in National Association

Drug chains are now represented in the National Chain Store Association, which it will be remembered was the new name to the association of grocery chains so that the association would become all-inclusive. George M. Gales, general manager of Louis K. Liggett Co., was recently elected a director of the association.

Recently elected officers of the association are: Samuel Robinson, president, American Stores Co.; William H. Albers, president, Kroger Grocery & Baking Co.; C. F. Adams, treasurer, First National Stores; C. B. Van Dusen, president, S. S. Kresge Co.; Frank Neville, president, Melville Shoe Co.; E. H. Krom, president, G. R. Kinney, Co.; George M. Gales, Louis K. Liggett Co.; J. C. Penney, chairman, J. C. Penney Co.; General R. E. Wood, President, Sears, Roebuck & Co.; George B. Everett, president, Montgomery Ward & Co.



"A steady but not phenomenal growth."



"The large price differential between Cinchophen and the Salicylates."

The Development of
CINCHOPHEN

By W. O. Brewer*

Although developing at a rapid rate, cinchophen has been greatly retarded by the price differential existing between it and the salicylates, with which group cinchophen appears to conflict in use. Any marked increase will probably come from considerably lower prices resulting from lower costs, and greater medical acceptance.

ABOUT 40 years ago, in 1887 Dobner[1] first synthesized the chemical compound called 2-phenyl-quinolin-4-carboxylic acid. Its pharmacological properties were not discovered until 20 years later when in 1908 Nikolaier and Dohrn[2] made the important discovery that it had the power to increase the elimination of uric acid from the human system. The first therapeutic application was reported by W. Wientruab[3] in 1911 in the treatment of gout. Many other investigators abroad and in this country took up the work and during the next decade pretty thoroughly explored and established its other properties, antiphlogistic, analgestic, antipyretic, and choleretic. While the incidence of gout in the United States is very low there remains the larger field of rheumatism and painful and inflammatory conditions where this drug is now employed.

The synthesis of Dobner is still used on a commercial scale and is called the Pyruvic Acid Method. In this method benzaldehyde, pyruvic acid and aniline are the raw materials employed. Another process was discovered in 1897 by W. Pfitzinger[1]. Entirely different compounds, isitin and acetophenon, are combined according to this method.

Cinchophen is a powder consisting of fine needle-like crystals. The melting point is about 214°C. It is practically insoluble in water and only slightly soluble in cold alcohol. Its salts with metals of the alkali group however are very soluble.

The ninth pharmacopoeia listed it as "acidum Phenyl cinchoninicum, Phenyl Cinchoninic Acid." This name was changed in the 10th edition to "Cinchophenum, Cinchophen." The latter name was designated by the Federal Trade Commission and the

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(1) Dobner: Liebig's Ann., 242, 205 (1887).
(2) A. Nikolaier and Dohrn: Deut. Arch. f. klin, Med. 93, 1908.
(3) W. Weintraub: Therap. d. Gegenw., 52, 97 (1911)
(1) The United States Tariff Commission Census of Dyes and other Synthetic Organic Chemicals.

Council on Pharmacy and Chemistry of the American Medical Association in August 1919.

The United States Tariff Commission Census state the sale of Cinchophen to have been 85,266 pounds in 1927.

The previous figures from the same source when charted (Figure 1) show a steady but not phenomenal growth in the use of this drug. While it was introduced here 15 years ago as an imported trade-marked specialty. it was not until after the beginning of the war that American firms began its manufacture. This was first done by The Calco Chemical Company. As its importance became evident, others entered the field of manufacture while some devoted their attention merely to its sale, purchasing their requirements. In a short time, nearly every drug and pharmaceutical manufacturer listed it. For the past eight years they have devoted considerable effort in familiarizing physicians with it through detail men, Medical Journals, and direct mail advertising. Considering the extent of these efforts as well as the numerous clinical investigator's reports in the Medical Journals and the excellent therapeutic properties of the drug, one would be justified in rating the growth as comparatively slow. It should be kept in mind, however, that another group of drugs, the Salicylates, covering practically the same therapetuic field was already firmly established in Medical practice many years prior to the introduction of Cinchophen.

Costs More Than Salicylates

Another deterrent to the increased use of Cinchophen has been the large price differential between this product and the Salicylates. This is well illustrated in the more recent selling prices of Cinchophen and Sodium Salicylate[1] plotted together on the same chart (Figure 2). Furthermore, while Cinchophen has been almost entirely advertised to the Medical Profession, numerous forms of Salicylates have been intensively advertised to the much larger field of consumption, the laity. Even considering their comparative use on physicians' recommendations alone, the Salicylates have a much greater sale. The replacement of them by Cinchophen will be slow in coming as cost differential must be materially reduced through savings in manufacture, sales, and distribution costs. These will depend largely on increased volume of sales which in turn depends on the slow process of acceptance by the members of the Medical Profession.

One objection to Salicylate use, namely the toxic reaction, termed "Salicylism," has been in many cases overcome by its application in enemas. Due to the poor absorption by this practice, much larger doses are required (3 to 4 times) than by mouth. Both Salicylates and Cinchophen seem to be better tolerated by some people when administered with Bicarbonate of Soda. Until recently no serious untoward action of Cinchophen has presented itself. A publication[1] last year cited a few recorded fatalities here and abroad due to Acute Yellow Atrophy of the Liver. In spite of the fact that for 18 years these are the only reported cases and although some of them resulted from the improper use of the drug, there has been created in the minds of some physicians a fear of their repetition. Physicians are more and more adopting the ethyl ester of methyl Cinchophen, called Tolysin, as this drug has shown no tendency to produce such secondary by-effects and is comparatively free from action on heart, stomach, or kidneys.

(1) Jr. A. M. A. Vol. 91-5 Aug. 4 '28.

(1) W. Pfitzinger Journ. f. prakl. chem. 2.56. 283 (1897)

Quicksilver Fight Continues

Quicksilver prices have been surprisingly steady during the past five months although the smoke of the battle between the English speculators and the Spanish and Italian Producers' Monopoly was expected to be clearing at this time, (DRUG MARKETS, Oct. 1928). However the battle has been a mild and long drawn out one and not much blood appears to have been drawn on either side.

What has happened since the Monopoly named its opening price of £21—15s per flask on October 1, 1928 (which was equivalent to $125.50 per flask duty paid), has been only slight shading of the prices quoted by the English so as to keep them a shade below those of the Monopoly. It must be remembered that the English had forced the price up to $132.50 here on October 1, only to have the Monopoly cut it at the opening of its operations. But as soon as the Monopoly cut the price, the English immediately went a few shillings below that price and have consistently quoted slightly below it ever since.

To all intents and purposes, and as far as any one can determine, the Monopoly has not as yet made a sale. The mines, however, are still producing quicksilver at a heavy rate, with the Monopoly holding the stocks. How large these stocks are, no one knows, but reports are to the effect that they are enormous, equivalent to perhaps a normal nine months' supply.

The English, on the other hand, are disposing of their stocks at very excellent prices (since the great bulk of the metal was bought at £12), and are at the same time weakening the position of the producers' Monopoly.

Since the first price named by the Monopoly, price cutting has been very slight. The weakness that brought the American market down to $120.00 (the lowest price this year) was due in larger measure to the competition here from the domestic metal, rather than to lower prices from abroad.

The question now revolves around whether the English can continue to sell for any appreciable length of time without depleting their holdings to the point where the Monopoly will have control of the market, or whether the Monopoly will be content any longer to let the English consistently take all the business by shading the price. *(Cont. on page 302)*

Peculiarities *of* Cost Accounting *for* PROPRIETARIES

By J. J. Berliner, B. G. S.

IN THE manufacture of proprietory preparations, it is seldom that a highly capitalized corporation is launched for the initial manufacture and sale of proprietory medicines and toilet preparations on an extensive scale, as the sales of the first few years are usually of slow growth so that heavy fixed charges would prove financially disastrous. Accordingly in general a company of substantial size in this industry will be found to be the successor of a number of smaller business. Hence the accountant finds the asset "formulas, trade-marks and goodwill" to be a very important and conspicuous item. In practically every such concern, goodwill has a preponderate value, and, while formulas in exceptional cases have high values, as a rule they are not as valuable as goodwill in so much as it is not difficult to imitate or substitute the average formula. Many proprietory preparations frequently will command a very high price, because of goodwill entirely divorced from the formulas.

The preparation of a proper balance sheet for a manufactured proprietary medicine is no easy task. Because of many facts peculiar to proprietaries, special knowledge of just how the problem should be handled will prove of great value to those who have met this problem in the past, but who as yet are not on the right track.

From the accounting viewpoint, it is therefore important to keep goodwill, trade-marks, and formulas in separate accounts so as to know the respective value of each.

Accepted accounting doctrines does not approve of fluctuations in goodwill account, but trade-marks account may be increased by the cost of securing registration of additional trade-marks and in some cases also by the cost of successful litigation in protecting trade-mark rights. Similarly formulas account may be increased by the cost of acquiring new formulas or improving old ones even though this cost may be in the form of salary paid to a staff chemist. The formula account may be decreased by the cost of discarded formulas when the three factors are combined in one account and a comparison of periodic balance sheets disclosed changes in the account the question arises as to which factor has been changed.

In enterprises of the type under consideration the gap between production cost and selling price is usually wide, the gross profits generally averaging from 60 to 65 per cent. This margin is made necessary by the heavy cost of advertising and other selling expenses. Therefore in the profit and loss statement, interest centers on the selling rather than on the manufacturing costs, reversing the general rule, and it is incumbent on the accountant appropriately to analyze selling expenditures so that intelligent periodic comparisons may be made of the various factors comprising the cost of the selling effort and the exhibit of increases or decreases and percentage to sales.

The advertising account should be sub-classified into appropriate divisions, as for instance, publication advertising, poster advertising, window display material, demonstration expense, circularizing, free samples, etc.

Usually a sample or booklet is offered free in the advertisements, the latter being keyed so that statistical records may be kept of the number of replies from each advertisement for the guidance of the advertising manager.

If sample size packages are sold the revenue from this source should be carried in a separate sales account as the percentage of gross profit is likely to be considerably smaller than on the regular sales. The profits from the sale of samples might consistently be considered a reduction of advertising expense rather than a trading income.

Toward the close of the fiscal year, should extraordinary advertising expense have been incurred the returns from which may not be expected until the following year, it will be appropriate to withhold such expenditure from the current profit and loss account, and to defer the amount under the caption "prepaid advertising expense."

Cuts, electros and drawings for advertisements may also be temporarily capitalized as deferred charges, but proper periods reductions of the account should be instituted to cover the value of obsolete cuts and drawings and worn out electros.

In other balance sheet and administrative accounts the classification and procedure would be much the same as for any other manufacturing and trading partnership or corporation.

Manufacturing Costs

The management not infrequently will be found pathetic toward the proposition of installing a complete cost system on the theory that the selling price is standard and cannot be made to reflect the fluctuations in cost and also because there is a wide margin of safety between cost and selling price.

If the only function of a cost system were determination of exact cost there would be some logic in this argument, but it happens that a true cost system has another attribute it is a potential agency for the reduction or stablization of costs.

In considering the best cost system for proprietory preparations, it should be borne in mind that in many cases the cost of the preparation itself is equalled or exceeded by the labor and material and overhead cost of packing, and it will be necessary to ascertain the cost of each of these two elements of the completed marketable product separately and then combine them, especially as the method of cost finding is likely to be different for the two elements.

Finished Bulk Product Cost

Finished bulk product cost comprises the liquids, pastes, powders, pills and tablets (compressed powders) in bulk before being enclosed in standard unit packages.

If the laboratory is a large one and its output consists of products of distinctive classes it would be advisable to departmentalize it for cost accounting purposes, but if methods of manufacture and character of products permit, it may be treated as one department particularly if the products are exclusively liquid.

The manufacturing process as applied to liquids is almost entirely a chemical one and there is practically no direct labor in the cost accounting sense. The manual work consists mainly of moving material for the purpose of filling or emptying vats, etc. Labor is, therefore, a secondary rather than a primary cost element. The process hour basis for determining the cost of liquids will generally prove the most satisfactory. The process hour rate, to be applied to all productions utilizing the process facilities during the cost period is determined as follows:

Total operating cost of process for period.

Process hour rate for period.

Total process time of all production process for period.

If there are several processes or departments in the laboratory a separate hour rate should be determined for each process or department. The operating costs of a process will include not only such items as superintendence, repairs and depreciation on equipment, floor space charges, power, heat and light, insurance, etc., but also laboratory labor.

Through the medium of process time cards the periods of time each production order for a specific product has been in process is reported to the cost department. The total hours on these cards for the cost period divided into the process costs for the period will give the process hour rate in accordance with the foregoing formula.

To the process cost of each production order will be added the material cost, ascertained from the material requisitions on the stockkeeper from material-used reports, to find the complete cost, at which cost entry will be made on the finished bulk product stock records according to product.

The process hour basis may also be employed satisfactorily in finding the cost of mixing pastes, powders, etc., but the conversion of powders into pills and tablets is frequently a machine operation and it will be necessary, to find the cost thereof, to utilize the machine hour, direct labor or kindred basis.

Part Finished Bulk Product Cost

In some laboratories several materials are combined to form a part finished bulk product which is a common constituent of two or more finished bulk products. In such cases a production order should be issued for a specific quantity of the part finished product and the cost should be determined by the same method as for finished bulk products when completed the part finished product will be recorded as such on the stock records at the ascertained cost and charged out of stock at this cost when it goes back into process to become part of a finished bulk product.

Material Cost of Bulk Products

If conditions will permit, it is, of course, preferable to deliver to the laboratory out of the store room (on a material requisition) the exact quantities of materials required for a given production order. Such requisitioned quantities will be credited on the stock records and charged to production at the stock record costs.

As care must be observed, however, to avoid too much red tape this method is not always feasible, especially when it is desired to maintain secrecy as to formulas or when there are numerous ingredients to a formula, some of them in minute quantities.

In such cases the accountant will have to be content with a static material cost based on the chemist's estate, but it may be approximately verified, and adjusted if necessary, from time to time through the medium of material control accounts properly classified.

As previously suggested the cost of packing material, labor and overhead is often even greater than the cost of the product itself, so that accurate and illuminating analysis of the packing cost is of paramount importance.

Material

The items entering into the cost under the heading of material will usually be found to embrace a part or all of the following: Finished bulk products (to be packed); bottles, jars, collapsible tubes, tin, wooden or pasteboard boxes; corks, rubber stoppers, screw caps, patent box covers; labels, paper seals, etc.; folding pasteboard cartons, corrugated wrapper cartons; containers to hold standard quantity of unit packages, as for example one half dozen, one dozen, etc. with the exception of the first mentioned item, there is no reason why the cost of any of these materials, used on a given production order cannot be found accurately through the agency of material requisitions and proper stock records, particularly if production orders are issued for standard quantities, as for example 100 gross, 500 gross, etc., at a time. The employment of counting machines will simplify the counting of small items such as corks, labels and the like.

In some cases the exact quantity of the finished bulk product required on a given order may be conveniently requisitioned and delivered to the packing department, but there are other instances wherein this is impracticable, as for instance where the product is delivered to the packing department through a piping system when this condition exists the quantity packed may be closely estimated by multiplying the number of packages completed by the average quantity per package plus a proper percentage for spillage. The production order will be charged and the stock records credited accordingly.

Labor and Overhead

The basis for ascertaining the labor and overhead cost will be governed largely by the character of the operations in vogue.

The operations will usually be found as follows: filling (enclosing product in bottles, jars, collapsible tubes, etc.); closing or sealing (affixing cork, screw cog, cover, etc.); labelling (attaching one or several labels to a single package) "cartoning" (inserting bottle, jar, tube, etc.; in individual folding carton or corrugated paper carton). This operation frequently includes insertion of printed matter and samples in the carton.

"Containering" (packing a standard quantity of unit packages in containers).

The direct labor basis of cost accounting for these packing operations will usually prove both simple and reasonably accurate, especially if piece work prevails, as it often does. In some plants all these operations are entirely manual, while in others filling, corking and labelling are done by special machines either individually operated or more or less automatic. In such cases the machine hour basis may be adopted, which will provide for the inclusion of the packing department overhead in the machine hour rate.

With the direct labor basis, the percentage that the entire overhead cost of the packing department bears to the entire packing direct labor cost should be computed for the cost period and this percentage applied to the direct labor cost on all production orders for the cost period.

General Ledger Control of Cost System. The cost system may be controlled by the following general ledger accounts: laboratory raw materials; packing raw materials; laboratory work in process; packing work in process; part finished bulk product; finished bulk product; finished packed product.

Cost of Goods Sold

Materials requisitioned will be credited to the appropriate material accounts and charged to the proper work in process accounts.

Finished production orders will be credited to the indicated work in process account and charged to the proper part finished or finished product account. The cost figures entered on sales tickets will be credited to finished (packed) product account and charged to cost of goods sold account.

The foregoing is merely a bare outline for a cost system. Further details would be largely influenced by the conditions current in any given plant.

Schieffelin Holds Sales Convention

Schieffelin & Co. sales convention, February 14 to 16, was the first to be held since occupation by the firm of their new quarters at 16 Cooper Square, New York. All representatives were brought in to inspect the new building and see for themselves the efficient methods used in handling orders.

Entertainment consisted of lunches in Greenwich Village, dinners at cabarets, a Roxy show, a hockey game, a trip through the studios of the National Broadcasting Co., and the musical comedy, "Hold Everything." The climax of the convention was a banquet the evening of February 16.

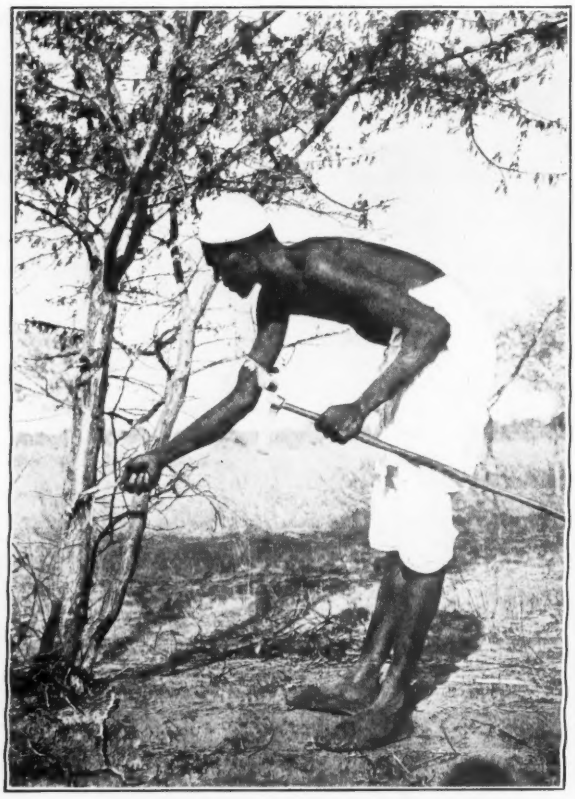
W. J. Schieffelin, Jr. presided as toastmaster at the banquet. William Leverich Brower, senior vice-president, was presented with a loving cup in commemoration of his sixty-six years of continuous active service with the company.

With appropriate remarks by Mr. Schieffelin and Mr. Blackman, the Nebraska representative, the largest and most successful Schieffelin convention closed.

Transparent wrapping paper, used for bread and other foodstuffs and in many other commercial lines, must pay a duty more than double the sum formerly exacted, according to a decision of the U. S. Customs Court, made public yesterday. The decision, made in favor of the Du Pont Cellophane Co., changes the tax status of the paper from Paragraph 42 of the Tariff Act, where it was subject to a tax of 25 per cent. ad valorem as similar to manufactures of gelatin, to Paragraph 31, where it is dutiable at 60 per cent. as a compound of cellulose in sheets.

On February 13 a jury in the Supreme Court of the District of Columbia, sustained the government in its contention that Chichester's Pills, marketed by the Chichester Chemical Co., of Philadelphia, are false and fraudulent and a misbranding under the Federal Food and Drugs Act.

Gum Arabic Garden near Taiara-Kordofan



Tapping a Tree for Gum Arabic

Exudation of Gum Arabic near the Point of Tapping

Cold Weather Causes

GUM ARABIC

To Be in Short Supply

GUM Arabic is occupying a rather unique position at the present time in that the spot market is active and shipments are being received slowly, resulting in a price advance of approximately twenty per cent. Spot stocks are selling at from 14c to 15½c per pound. As shown from the following table of back price statistics this is a higher price than has prevailed in the past five years.

High	*Low*	
.33	.17	1917
.29	.25	1918
.19	.14½	1919
.15½	.13	1920
.11	.09	1921
.15¾	.10	1922
.21½	.13	1923
.13	.11¾	1924
.13½	.13¼	1925
.13	.11½	1926
.11	.10½	1927
.11½	.10½	1928

A price advance of twenty per cent. has occurred in this ordinarily quiet and easy commodity. While the reason for the strong position is quite well agreed upon, the question of whether or not it is temporary is not so certain.

The Sudan has been experiencing an exceptional cold spell which has delayed the crop by about a month. Warm weather is absolutely essential to a good crop as cold prevents the easy flow of the gum which also exudes from the trees in less quantity under such an adverse condition.

It would appear from past experience that when a crop is delayed for some reason the yield is small and more or less disappointing. Should this be the case the present high market may prevail for some time to come. There is, however, a difference of opinion in the trade as to the ultimate outcome of the present situation. Some importers are of the opinion that the top price for Arabic has not been reached in the present move and a strong market will prevail for some time to come; while others are of the opinion that the situation is merely temporary and that the new crop will undoubtedly relieve any strained condition now existing. At any rate the market for Gum Arabic will be watched with keen interest for further developments.

Up to 1923 the annual crop of gum arabic had seemed to be diminishing for some time, starting with the year 1909. It was some what of a surprise, therefore, when the 1923 crop turned out to be 22,422 tons, or a fifty per cent. increase over the 1922 crop. The years 1924 and 1925 showed up favorably also, being 20,388 and 18,950 tons respectively. In 1926 production increased somewhat, to 22,742 tons. The tonnage for 1927 was 21,260, and 22,099 for 1928. It has been estimated that the average capacity of the country under existing conditions is about 20,000 tons a year, and with favorable weather conditions, absence of forest fires, and more thorough covering of trees, there is no reason why a larger crop is not possible.

Gum Arabic is an example of a natural product which chemical science has not yet been able to produce artificially, and in the opinion of some, the prospect of doing so in the future is remote. It exudes from breaks in the bark of certain trees of the genus acacia, hence the gum is often called acacia. Just how it is produced in the tree is now known, but it seems likely that it is produced by chemical changes in the cellulose of the tree, resulting in the breaking down of the cell walls, and the formation of a non-cellular mass. Most of the Sudan gum, which affords the subject of this article, is derived from the grey-barked tree, known as the hashab, and hence one grade of Sudan gum is known as hashab gum. These trees are about ten to twenty feet high, growing on poor sandy soil. Most of the better-grade gum is collected from privately owned trees, where the trees are tapped by

the natives, generally between the months of October and February, or at the close of the rainy season. Tapping consists of removing a strip of bark, two or three feet long and one to three inches wide. Liquid gum exudes slowly from these exposed parts and forms tears which gradually dry and harden on exposure to the atmosphere. The rate of exudation depends principally on the temperature, being more rapid in warm than in cold weather. Six to eight collections are made at intervals throughout the dry season, fresh exudations taking place when the first coating of gum is removed. The quantity of gum obtained from successive collections usually diminishes as the season advances.

An interesting theory as to the cause of these exudations has been advanced repeatedly by different investigators, and a certain amount of experimental evidence has been brought forward, some of which would seem to support this theory, while some of it would seem to refute it. The exudation appears to be a natural process on the part of the tree to protect exposed portions of its wood, but some investigators have advanced the theory that it is not a protective exudation but an actual infection of the "wound." Certain bacteria have been found which seem to be present wherever the exudation takes place and these have been developed in nutritive media with the result that substances were produced in the media which resemble gum arabic in certain ways. On the other hand, certain trees have been, perhaps rather haphazardly, inoculated with these bacteria and the result has been a retardation rather than an acceleration of the exudation. If it would be proved that these bacteria are the cause of the exudation and a method of successful inoculation could be devised, it should be an easy matter to increase the production of gum arabic to a very marked degree.

Cuban Drug Stores and Alarm Clocks

Drug stores in Cuba are restricted to the sale of drugs, chemicals, perfumes, stationery and orthopedic apparatus. Any store selling anything other than these products are punishable by heavy fines according to a recent statement by Dr. Cesar Muxo, Pure Food & Drugs Commissioner.

Some wholesalers have adopted a profitable means of speculating with the unlawful practice of selling other products in drug stores, and have found some way to push undesirable merchandise, such as alarm clocks, clothes hangers, etc., with their advertisements printed on such goods, which they give away as a bonus to their customers.

The happy originator of this scheme, instead of giving the usual cash discounts as other jobbers do, "offers" a larger discount in "merchandise", as he calls it, and on every order the retail druggist "gets" 10 per cent., it is stated, of rubber balls and play toys, the value of which is figured on "the price he is supposed to sell this stuff."

So far, the real fact is that he gets no discount at all when he buys, and has to wait until he is able to sell the "premium merchandise" to obtain the value of the discount. And then he must get the prices supposed to those goods, for otherwise he does not get the full discount.

Of course, the discount is figured on the price of the sundries invoiced, so that the said 10% can be taken off, but as it is not given in cash, but in "merchandise", this is nothing but a compelled sale of articles that the buyer has to accept. The conclusion is that the wholesaler "sells" these items.

But he does not sell them at cost, getting the advantage of his advertisement printed on them, but he profits on the "sale of them," for their value is figured on the prices the retail druggist has to charge for them. So there the benefit of the free advertising leaves a margin of profit between the original and the intended retail price.

Retail Druggists are not to blame for this violating of the law, for it is the unfair competitor who chokes the little druggist and makes his situation impossible, stocking him with this disreputable assortment of merchandise.

It is expected that the purpose of the Commissioner Dr. Muxo will be carried out, but we must ask: "If retailing such goods at drugs stores is unlawful, is not the giving of them by wholesalers as a bonus on their purchases unlawful"?

If wholesalers keep them in stock and, they hand it over to the retailer, who, can't, by the law sell these things, and they are not supposed to sell any others but retail druggists, are they not breaking the law, or at least forcing the retail druggist to become an outlaw ?

Let us get rid of that trash. Let us observe the law. But don't make the retail druggist only, but the wholesaler also, observe the law.—"*Heraldo Farmaceutico.*"

Without Comment

"We have been solicited to join in a very large merger, but as we could not see wherein that merger would do any more for our customers than we are already doing, we declined to affiliate," says "Druco News", the house organ of the Philadelphia Wholesale Drug Company, which continues:

"In some of the mergers of which we have knowledge the promotors express their solicitude for the independent retail druggists, but under all their professions of philanthropy lies selfishness and financial schemes of stock jobbery. We want none of it and we are sure that our customers feel the same way."

No Admitted Concessions *As Yet* Given In Multiple Seizures

By H. C. Hallam
Washington, D. C.

MULTIPLE seizures and questions of labeling were involved in two important cases under the food and drugs act that were tried here recently. One of these cases, involving labeling of Chichester's pills that was alleged by the Department of Agriculture to be misbranding, was decided in favor of the government, by a jury, on retrial, in the District of Columbia Supreme Court. According to Walter G. Campbell, director of regulatory work under the department, this case was typical of about forty cases involving charges of misbranding and alleged false labeling, now before federal courts throughout the country. It would not necessarily be inferred, Mr. Campbell made plain, however, that all these cases would be won by the government. These cases are probably not on all fours with the Chichester case, it was said. The state of facts may vary in each case as to the claims made on the labels and the therapeutic value of the products. The decision in each case will depend upon the facts as found and with reference to the application of the law thereto.

With the National Remedy Company injunction case still before the courts, and the Department very active in demanding label changes it is interesting to note that, although the Department is conferring to greater extent with the industry, it disclaims its responsibility to do so.

The respondent or defendant drug manufacturer in the Chichester case was not so fortunate as he was in the case of the National Remedy Co., in the opinion of trade expert observers, which was argued March 1 before Judge Peyton Gordon in the District Supreme Court. This case, which involves an attempt of the company to have the multiple seizure of its product—B. & M. External Remedy—stopped by injunction, was very ably presented for consideration by the court. Judge Gordon asked that briefs be filed by the parties concerned within ten days.

The Food and Drug Administration made a motion that the company's bill asking a temporary injunction against department officials to restrain them from making further seizures of the company's product be dismissed on the following grounds:

1. That it was a proceeding against the United States and could not be carried out.

2. That the court had no jurisdiction to restrain the enforcement of a prosecution for violation of law.

3. That the court had no jurisdiction to restrain the defendants (the Secretary of Agriculture and his subordinates) from proceeding against the company.

4. That the court had no jurisdiction to interfere with the district attorneys in their various other jurisdictions, in their efforts to enforce the food and drugs act by seizing the company's products in any federal judicial district throughout the country.

For the purpose only of making this motion and arguing it, the truth of all averments made by the company in its bill seeking an injunction was admitted by the government.

On the other hand, counsel for the company, Melvin Johnson and Frank Sprigg Perry, contended that this case was not an action against the United States government; that the request for injunction was against the Secretary of Agriculture to enjoin him because there had been an abuse of the power granted to an administrative officer, and that it was essentially a "bill of peace" to prevent a multiplicity of suits, which is in line with the theory of the practice of the law that effort should be made to minimize and lessen litigation; that the court has jurisdiction to stop wholesale prosecutions of the company; that the latter, though having already beaten the government once and state authorities once, is still willing to try the case over again in one judicial district, but does not feel that it should be required to go on trial in every district throughout the country; that there is

no attempt to stop all seizures, but only to limit them to a reasonable basis, and that there is no attempt to interfere with the duties of the district attorneys, inasmuch as the B. & M. Remedy seizures were by order of the Secretary of Agriculture.

Counsel for the company cited two important cases bearing out their contentions. One was a Chicago case involving labeling of food that was said to be on all fours with points involved in the National Remedy case. Another was a Pittsburgh harbor case in which the then secretary of war, Henry L. Stimson (newly appointed secretary of State) undertook to prosecute the Philadelphia Company for filling in some marsh land that belonged to it on the edge of the river harbor at Pittsburgh and which the secreatry of war had included within the limits of the harbor. On appeal to the courts the Philadelphia company won out.

National Remedy Case to Supreme Court

Whatever the decision of the District of Columbia court in the National Remedy case, the issues involved are so important that it is understood to be the intention of counsel on both sides to carry appeal eventually to the United States Supreme Court.

While asserting that the practice of making multiple seizures has not been abandoned, Department of Agriculture officials do not point to any recent such seizures. They are continuing to concentrate on the campaign to bring about correct labeling of products for which therapeutic claims are made with reference to the treatment and cure of influenza, lagrippe, pneumonia and related diseases. In the course of this campaign, which is expected to continue for some weeks yet, Dr. Durrett, chief of Drug Control under the Food, Drug and Insecticide Administration, says, food and drug inspectors in the field have located about 700 so-called flu preparations the labels of which were believed by officials to need reviewing. The Drug Control office is handling about 10 or 12 cases involving flu preparations daily.

Seize 75 "Flu" Remedies

Seventy-five of these preparations have been seized, Dr. Durrett says, some of which "may have been multiple seizures," for alleged violation of the law against misbranding. About 100 manufacturers have come in voluntarily to the Drug Control office it is stated, to talk over the revision of labels on flu preparations, if changes be deemed necessary by officials. About 90 cases involving labels on alleged flu preparations are in various stages of consideration and development in the office of Drug Control, Dr. Durrett says. Letters allowing manufacturers three weeks to get their labels in proper shape have been sent many flu remedy makers.

Agents of the Food, Drug and Insecticide Administration, Dr. Durrett announces, in their campaign against so-called flu cures, have found approximately a hundred preparations that are sold only in one drug store or one town, in each instance. Such local products, not moving in interstate commerce, do not come within the scope of the food and drugs act, but it is understood that the policy of the administration has been to advise with the makers and sellers of such products, on a friendly basis, pointing out that whereas they are now purely local in character, in time they may wish to expand into interstate channels, and then their labels would be subject to the law. Under the circumstances, it is suggested to them, it would be wise to make labels accord with the facts, as generally accepted in the medical profession.

Constructive Criticism Continues

Reports in drug trade circles, in connection with the flu campaign and the question of multiple seizures, that the Administration is changing its policy with respect to the matter of giving constructive criticism of labels and advance information and advice are denied by officials. The only ground for such a reported change, it appears, would be the question of the amount of time required of officials in handling these matters, and whether such activities would take their attention away from matters more in the line of law enforcement. Asked about the matter, Walter G. Campbell said:

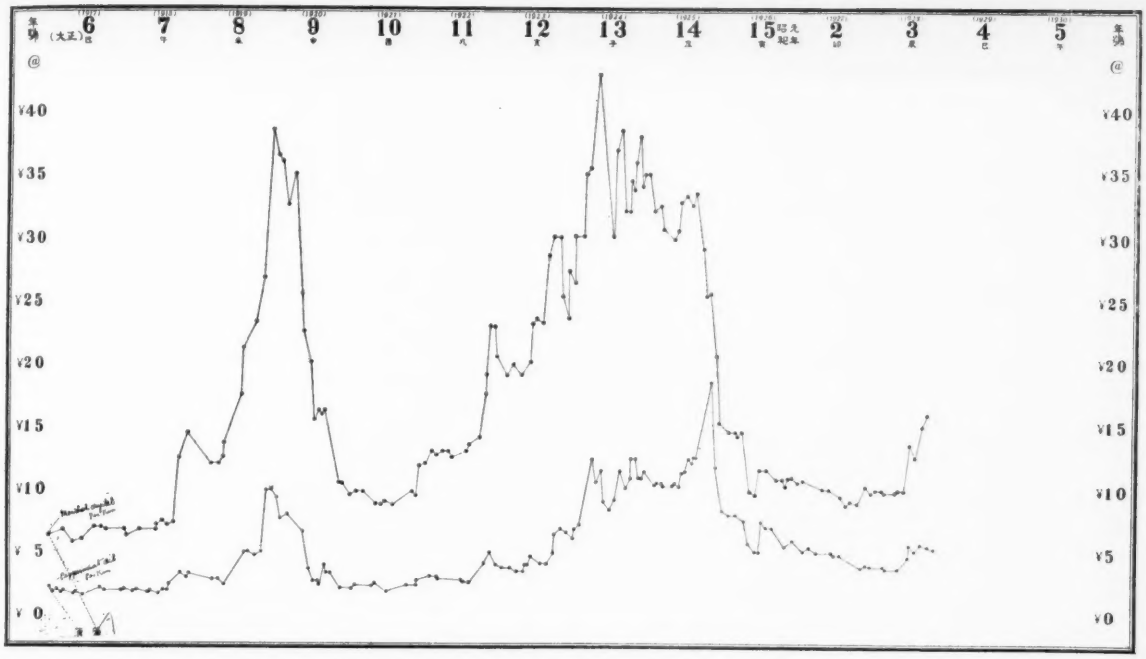
"The only question is how much time can be given to advisory work co-operating with drug manufacturers, in view of the very small force we have and the large field they must cover. The Department has no authority to approve a label, but it can and does criticise it in a constructive way. But the responsibility, in the final analysis, must be with the manufacturer. That has always been the basis of the Department's discussion with manufacturers. It is possible that a label found to be satisfactory now, may not be deemed satisfactory in ten or fifteen years, in the light of scientific developments and increased medical knowledge.

Time and Forces Limited

"We want to enforce the law in a constructive fashion. We are willing to go where practical, in the advisory-before-the-fact attitude. But the law does not require us to do that. Our appropriations and our force are limited, and there must be no sacrifice of protection to the public, in the effort to help the manufacturers. How far can we afford to go in advising manufacturers, in advance, without creating a frankenstein activity that might prevent us from doing what we are required to do under the law ?"

Dr. Durrett states that he and his associates are continuing to handle drug labeling cases in an advisory manner in co-operation with manufacturers' representatives. They have to work overtime to do it, they say, but they are not complaining.

It is understood that Carson P. Frailey, secretary of the American Drug Manufacturers' Association, has conferred lately with department officials about co-operation on general principles applicable to labelling which are in line with his tentative plan for arriving at type formulas or labels for medicinal products.



Upper line: prices of menthol. Lower line: prices of peppermint oil. Prices are yen per kin at Kobe.

Will Mexico *Augment Our* Menthol Supply?

Declining imports of Japanese menthol during a time when consumption is obviously on the increase, indicates that consumers are searching for substitutes--most likely the synthetic. With a peppermint oil containing over 50% menthol undeveloped in Mexico, might we not extend our supplies of the natural product?

SURPRISING as it may seem, the imports of Japanese menthol into this country during 1928 declined sharply below imports of 1927, and 1927 was sharply below 1926. To best show the picture, we present the following list of import figures: 1922, 182,287; 1923, 197,476; 1924, 194,641; 1925, 293,807; 1926, 451,681; 1927, 368,594; 1928, 253,717.

Despite the steadily increasing number of uses for menthol, and the steady movement of those products that have always consumed menthol, imports of the Japanese product during 1928 were lower than the imports for any year since 1924.

This is in direct contradiction to what one would expect with the wide advertising being carried on in the interest of shaving creams that now contain menthol and thus cool the face while shaving." This is also in contradiction to what one would expect from the introduction of not one, but several, brands of mentholized cigarettes. Certainly we are consuming more menthol than ever, but this extra menthol is not coming from Japan, and therefore, the supposition is that it is largely synthetic menthol.

As stated (DRUG MARKETS, August, 1928) the Japanese are no longer able to run menthol up to the ridiculous figures of recent years without basic causes. Efforts to do this in the past have only resulted in consumers giving hearty co-operation to those trying to lower and stabilize their menthol costs by the introduction of a synthetic product. Manufacturers, it is true, have been loath to use a synthetic product, but they are gradually becoming convinced that the use of some of the synthetic is a very desirable

thing for the purpose of stabilizing the price of natural menthol.

As a further stabilizer for the market, there seems to be a marked possibility of our neighboring country, Mexico, either supplying us with menthol, or at least supplying with a form of peppermint oil that contains over 50 per cent. of menthol.

The Mexican peppermint oil is obtained from the plant known as "Fragrant Tabaquillo," "Rancher's Tea," (Hedeoma Piperita, Family of the Labiates), which is an annual plant flowering in the months of July, August and September.

Plant Grows Wild and Abundant

Tabaquillo grows wild and in great abundance in the states of Michoacen and Mexico, especially in the Nevada de Toluca, Desierto de los Leones, the las Cruces Mountains, Zumpango de la Languna, Texcocco, etc.; also in Huitzilac, in the State of Morales; Cerro del Ajusco; Real del Monte; el Chico; State of Hidalgo.

The essential oil extracted from this plant is similar to that of mentha piperita, and has an odor similar to that of hirva buena; and a bitter, sharp taste which after a few moments leaves an impression of coolness similar to that produced by mentha piperita. The color of the oil is greenish yellow, it is volatile and does not leave a stain on paper. Applied to the skin, it has a caustic feel that rapidly gives way to a feeling of coolness with mild anesthesia.

The density of the oil at 15° C. is from 0.790 to 0.797, and its boiling point is about 190° C.

The essence may be produced by various processes, but the best and most economical way of obtaining a good product is by distillation with steam which is introduced either directly or by means of the "Subeiren" system.

Apparatus for Distillation

The apparatus which should be employed for the distillation of tabaquillo leaves is a retort made of sheet copper and well-tinned on the inside; it should be provided with several platforms of wire gauze or perforated plates, also well tinned, upon which are placed the leaves of the plants in the form of layers or beds; these should be not thicker than 10 centimeters, so that the steam may easily pass through and drive off the essential oil which they contain. The steam carries the oil to the cooler, where it is condensed and passes, along with the condensed steam, into the receiver. In this receptacle there is a separation into two layers, an upper layer consisting of the essence and a lower layer of water. The oil is removed from the receiver by means of a pipette, filtered through filter paper, and placed in dark bottles which are then hermetically sealed. If the essence is mixed with water so that a milky liquid is formed, it is allowed to stand until separation occurs, after which it is decanted and a few pieces of well dried, fused calcium chloride are placed in the bottle with the idea of removing the traces of water which the essence may contain. If in spite of long standing the product of distillation retains its milky appearance, due to the presence of a small proportion of essence to water, this water should be used in the next distillation.

Before placing the different layers of tabaquillo leaves in the retort they should be soaked for 24 hours in half their weight of a 15 or 20 per cent. solution of sodium chloride (common salt).

Once the distillation is begun it must not be discontinued until the distillate which passes over is no longer milky and is free from drops of oil.

The method of solvents is undoubtedly a good one but the apparatus required is very much more expensive; moreover, the manipulation of the extractor is more complicated, and at the present time the necessary solvents command a high price.

The yield of pure essential oil from the fresh plant is from 0.25 to 0.33 per cent. when working under vaccum.

If the distillation is carried out with direct firing and at ordinary pressure there is risk of burning particles of the leaves and this will give the essence an empyreumatic odor, with the result that the essence loses much in quality.

Two Methods of Separating Menthol

The menthol may be separated from the essence by one of two methods: the first consists in subjecting the essence to a low temperature. In the second method the process is carried out as follows: to 50 grams of the essence there is added 500 grams of alcohol (75° Gay-Lussac). It is then heated to 75° or 80° C. in a flask provided with a reflux condenser or simply with a glass tube more than a meter long which serves as a substitute for the condenser. After this the flask is rapidly cooled and the impure menthol separates out on the bottom of the flask. It is purified by filtering off and again treating the residue with 200 grams of 75° (G. L.); there is then a separation into two layers; the lower consists of a clear, inodorous terpene, the upper layer of a solution of menthol, which may then be separated in the form of crystals by cooling.

Crystallizes in Winter

The essence of tabaquillo crystallizes spontaneously in winter when the temperature falls several degrees. If the essence is exposed during the night to the cold it will be found crystallized the next morning. The crystals are carefully dried on a filter paper in such a manner as to remove all adhering liquid; this operation should be carried out as rapidly as possible.

When extracting small quantities of menthol, the operation may be facilitated by depositing the crystals in a porcelain capsule and placing the latter within a larger one containing some sulphuric ether; the volatilization of the latter will cause the temperature to drop a little and this will be followed by good results. The essence of tabaquillo obtained under good con-

(Continued on page 302)

A Fresh Water Fish Gives

An Antirachitic Liver Oil

A possible source of an oil potent in Vitamin D content is found right in the Great Lakes of our own country.

THE nearest fresh water relative of the cod fish, the burbot fish, often called "lawyer fish", or "eel pout", has been tested for vitamin D content of the oil of its liver by Bertha Clow and Abby Marlatt who reported the results of their investigation in February "Industrial and Engineering Chemistry."

The burbot is found in the Great Lakes, the annual catch totaling 200 tons of fish. The fish is seldom used for human food and is either thrown away or used for fertilizer. The average weight is three pounds, but the liver is reported to be at least six times as large as that of any other fish in these waters. One of the livers used by the experimenters weighed 275 grams (0.55 pound). The percentage of oil from the livers varies from 36 to 56.

The investigators then go on to state that the preliminary investigation by McCollum et al., ("Journal Biologic Chemistry" 53, 293, indicated that the oil from the burbot liver contains the antirachitic vitamin, because of this, and because of the prevalence of the burbot in Wisconsin waters, the Home Economics Department of the University of Wisconsin made a detailed study of the relative antirachitic potency of burbot-liver oil.

"Through the courtesy of the assistant superintendent of fisheries in Wisconsin, the burbot fish livers were removed from the catch and shipped packed in ice within 24 hours. The gall bladder was removed and the liver cut into inch cubes, weighed, and blanched in one-third its weight in water. The liver and the boiling blanching water were packed in cans, approximately 200 grams of liver and 66 cc. of water in each half-pint jar. These were cooked in a pressure cooker at 15 pounds (1 atmos.) for 20 minutes. By this process the oil rose to the top of the can and later was removed with a medicine dropper and used in the feeding experiments.

"The recovery method was used throughout this investigation. In this method young rats were placed on a rickets-producing ration for 21 to 23 days and at the end of that time the recovery or test diet was given for 10 additional days. At the end of the tenth day the rats were chloroformed and the wrist end of the radii and ulnae removed and covered with a 10 per cent formalin solution. After standing 24 hours or more the modified "line test" technic according to Steenbock's method was used to determine the degree of recovery.

Seventeen litters and 76 rats were used. Each rat weighed approximately 60 grams when the rickets-producing ration was started. The age of the rats at this date ranged from 23 to 35 days.

Ration 2,965 was the rickets-producing ration.

"Filtered burbot-liver oil or cod-liver oil (Meade-Johnson) was added directly to the ration at the end of the depletion period. In all rations in which the oil was below one per cent, a one per cent ration was first made and the lower percentages were made from it by the dilution method. For example, to obtain the 0.25 per cent. ration 25 grams of the one per cent. ration were made up to 100 grams with ration 2,965. Individual food-consumption records were kept during the recovery period, and from this the number of grams of oil consumed could be calculated.

Comparison of Antirachitic Properties of Burbot-and Cod-Liver Oils

Oil ration	2%	1%	0.5%	0.25%	0.125%	0.06%	0.03%	0.015%	0.007%
				Burbot-Liver Oil					
Number of rats	2	5	5	4	5	5	5	10	2
Oil consumed during 10 days, grams:									
Average for group	1.47	0.67	0.326	0.185	0.094	0.041	0.021	0.011	0.004
Variation within group	1.36–1.58	0.57–0.84	0.29–0.39	0.171–0.205	0.08–0.11	0.037–0.044	0.019–0.022	0.010–0.013	None
"Line test"	******	******	*****	*****	*****	****	***	**	*
				Cod-Liver Oil					
Number of rats	4	4	4	4	5	5	5		
Oil consumed during 10 days, grams:									
Average for group	1.44	0.69	0.386	0.185	0.097	0.049	0.023		
Variation within group	1.32–1.54	0.58–0.81	0.35–0.41	0.163–0.210	0.090–0.103	0.047–0.053	0.018–0.026		
"Line test"	*****	****	****	***	**	* to **	0 to *		

Explanation of "line test" results:

****** Complete healing—very narrow metaphysis and a heavy line
***** Practically complete healing—narrow metaphysis and a heavy line
**** Very good healing—medium metaphysis and a heavy line
*** Good healing—medium metaphysis and a medium line
** Fair healing—wide metaphysis and a narrow line
* Signs of healing—wide metaphysis and a slight line
0 No healing

"Comparison of the results on the two kinds of fish-liver oil rations (Table 1) showed that the two per cent. cod-liver oil ration was necessary for practically complete healing while with the burbot-liver oil ration the healing was practically complete on a ration as low as 0.125 per cent. The 0.5 per cent. cod-liver oil ration gave very good healing while the 0.06 per cent. burbot-oil also gave very good healing. With 0.03 per cent. cod-liver oil there was no healing in three cases and only very slight evidences in the other two cases, while the same percentage of burbot-liver oil gave good signs of healing. With as low as 0.015 per cent. burbot-liver oil addition to the ration there were still considerable signs of healing. The two rats on the 0.007 per cent. burbot-liver oil were probably comparable to the 0.06 per cent. cod-liver oil addition.

"There seems to be no doubt that the samples of cod- and burbot-liver oil studied showed a marked difference in antirachitic potency. A quantitative estimation of the comparison revealed that the burbot-liver oil is eight times as potent as the cod liver oil. For instance, the 0.06 per cent. burbot-liver oil and the 0.5 per cent. cod-liver oil rations give ****healing (see table) and the latter has practically eight times the amount of oil addition; 0.03 per cent. burbot-liver oil and 0.25 cod-liver oil give***healing, etc.

"Whether or not this difference in antirachitic potency is due to the inherent property of the oils or to a variation from one sample to another is not known. Hess, Bills, Weinstock, Honeywell, and Riokin have reported a wide variation in the potency of cod-liver oil. They report that the antirachitic potency of the liver of the cod is in inverse ratio to its content of oil. Tests of the ether extract of livers, very small and poor in fat, showed them to be exceptionally potent—"far exceeding in potency any oil which has been heretofore reported."

"In the light of this work by Hess and his co-workers, perhaps too much emphasis may be placed on the relative potency of burbot—and cod-liver oils. At least, we probably can assume that burbot-liver oil may be classed with cod-liver oil as an excellent source of the antirachitic vitamin."

The Amtorg Trading Corp., representing Soviet Russia commercial and industrial organizations, has leased the seventeenth and eighteenth floors, 28,000 square feet in the recently completed twenty-five story office building at 261 Fifth Ave. The corporation will move from 165 Broadway to provide for expansion.

Vick Chemical Co., leased, for a long term, the forty-first floor in the new Chanin Building, Forty-second st. and Lexington ave., for executive and sales offices. The Vick Chemical Co. will move their offices from 17 Battery Place about April 1.

The Wm. S. Merrell Co. Laboratories announce the addition of Merco Pineapple to the Merco Flavor Family.

Foreign Abstracts

A Chemical Reaction of Antirachitic Vitamin

Phosphorus pentoxide is added to a preparation of antirachitic vitamin in olive oil, which contains 1% of the vitamin. At the end of a short time a reddish brown color is formed in the mass. The color becomes darker and darker and finally is changed to almost a black. Olive oil of the ordinary type, which may or may not contain irradiated cholesterin, does not give this reaction. Lipanin and sesame oil also do not give this reaction. On the other hand cod liver oil will produce the color change. W. Stoeltzner, Muench. med. Wochen., 1928, number 37.

Peroxydase Nature of "Active" Iron

The color reaction with benzidine and hydrogen peroxide is generally used for the purpose of determining the activity of iron compounds. The author carried out a great many experiments with different published methods and reached the conclusion that almost all compounds of iron give a greenish blue coloration with alcoholic and aqueous solutions of benzidine, even in the absence of peroxide of hydrogen. On the other hand, in acid solution, certain compounds of iron give a color reaction with benzidine, resembling those that are produced by the true peroxydases and oxyhaemoglobin. But the true peroxydases also give a reaction with potassium iodide and peroxide of hydrogen mixture, while the complex iron compounds, if they give the benzidine reaction, do not give a color reaction with potassium iodide and peroxide of hydrogen reagent. The author has accordingly concluded that no compound of iron possesses the peroxydase action, contrary to what has been stated up to the present time for an entire series of these compounds. H. Ucko, Klin, Wochens., 1928, number 32.

Identification of Alkaloids by the Dragendorff Reagent

The following method is proposed for the identification of alkaloids. The Dragendorff reagent is added to a solution of a salt of the alkaloid of 2% concentration. The Dragendorff reagent is obtained by saturating a solution containing 10% of potassium iodide with bismuth iodide in such a manner so as to avoid an excesss of potassium iodide, which renders the reagent less active. The solution is then centrifuged and a small part of the precipitate is placed upon a microscopic slide The sample is dried along with the filter paper, covered with a cover plate, a drop of alcohol is added, the mass is gently and carefully heated and then left to crystallize. The crystallization process may then be repeated until good crystals are obtained. Cadaverin, putrescin and muscarin give precipitates, but crystals are never obtained. Urea, uric acid, hippuric acid, creatin, creatinin, adenin, guandin and tyrosin do not give a precipitate with the reagent. The crystals that are obtained with codein, brucine, theobromine, pyridine, spartein, caffein, heroin, strychnin, cocain, atropin, aconitine and quinine are described. Espisson, Ann. med. leg. chim. pot. sc. through Pharm. Weekblad, 1928, number 39.

Salvarsan and Derivatives

The historical development of salvarsan is described. Methods of formation and properties of various derivatives are described. Structural formulae are given. It is pointed out that either aniline hydrochloride or arsanilic acid may be used as the starting point in preparing salvarsan. The properties, chemical composition and method of formation of myo-salvarsan are described.

Toxicity tests must be made on the salversans for the reason that a chemical analysis alone does not allow the presence of toxic substances to be detected. A biological test must be made in order to determine whether or not the salvarsan contains such toxic substances. On the other hand the toxicity test is not sufficient to determine the value of the salvarsan from the therapeutic standpoint. A biological test must be made.

(*Continued on page 303*)

A Year's Activity *in* German Pharmaceuticals

The first installment of the Medicinals developed in Germany during 1928, with names of manufacturers and complete references.

DURING the year 1928 many interesting and valuable pharmaceutical products were brought on the German market and distributed throughout the World in greater or lesser degree. The German pharmaceutical manufacturers are showing great enterprise along these lines, but students of the economic situation in the German pharmaceutical industry have decried this activity as the number of products is claimed to be too large. A condition of over-production exists. While this is a bad state of affairs viewed from the economic standpoint it has its advantages when considered in other ways. The activity of research chemists and manufacturers in developing new pharmaceuticals always presents the possibility of discovering some product of remarkable physiological properties, which can go far in alleviating pain, in curing diseases and the like.

It is interesting to note that but very few of the new products are curealls. The pharmaceutical manufacturer knows well that such a thing does not exist. Many of the new products, as will be seen from the list given below, are soporifics. To-day there are many pharmaceuticals on the market that have this effect on the human organism when taken internally or injected, and the physician is in the position to select those that are best suited for his individual patient. There are also a large number of pain-alleviating preparations and narcotics. New products have also been developing for treating asthma, gout, rheumatism, diabetes, liver troubles and gall troubles as well as sexual diseases. Rickets is one of the diseases to which special attention has been given, and pernicious anaemia, has a number of special preparations devoted to its alleviation. Interesting preparations have been developed for the treatment of haemophilia. Other pharmaceuticals have been developed during 1928 for use as antipyretics, antiseptics, lowering the blood pressure, cardiac medicaments, diuretics, expectorants, sedatives, tuberculosis remedies, for treatment of wounds, stomach troubles, urine disinfectants, for the treatment of migraine, as nutrients, etc., etc.

Adovern. Consists of a mixture of the two active glycosides are contained in adonis vernalis. It is a mild cardiac tonic, and is specially suitable for the treatment of diseases which are susceptible to treatment with digitalis. The dose is 20 to 25 drops one to three times a day. It is described by Hans Loehr (Muench. med. Wochenschrift, 1928, pages 1817ff), by K. Fromherz (Muench. med. Wochenschrift, year 1928, pages 1818ff), by H. Hippe (Therapie der Gegenwar., 1928, pages 335ff), by Jansen and Koopman (Med. Klinik, year 1928, pages 667ff), and by Hertz (Klin. Wochenschrift, year 1929, pages 94ff). Manufactured by Hoffmann-LaRoche, A. G., Basle, Switzerland.

Adsorgan. A mixture of 40% silver chloride silica gel, 10% silver carbon and 50% cocoa. It is known for its property of destroying bacteria and has found considerable application in the treatment of diseases of the digestive tract in absorption therapy. The dose is two teaspoonsful a day. Described by Jehle (Wien. med. Wochenschrift, year 1928, pages 94ff), by Eckhart (Wien. med. Wochenschrift, year 1928, pages 1027ff), by Hochsinger (Med. Welt., year 1928, number 35), by Schaffler (Therapie der Gegenw., year 1928, pages 85ff), and by Strasser (Med. Welt, year 1928, pages 1606ff). Manufactured by Chemische Fabrik von Heyden, Radebeul-Dresden, Germany.

Algopysan. A new anodyne. It contains 0.1 dimethylantipyrene, and 0.2 of a bromine mixture. Described by P. Freud (Med. Klin., year 1928, pages 1056ff). Manufactured by Chemosan-Union A. G., Vienna, Austria.

Amigren. A new acetyl-salicylic acid preparation. It is characterized by being soluble in water and having strong analgesic properties. Each tablet contains 0.2 of acetylsalicylic acid, 0.2 of sodium citrate and 0.05 part of caffein. Described by Prof. E. Fuld (Deutsche med. Wochenschrift, year 1928, pages 1720ff). Manufactured by Remedium Chem. Institut, Berlin, Germany.

Antiknesin Pads. (According to Schottmueller. Pads are first wet with water before they are used. It is recommended for the treatment of pruritus ani. Described by H. Frank (Deutsche med. Wochenschrift, year 1928, number 33). Manufactured by Woortmann & Moeller, Hamburg, Germany.

Apicosan. Solution of natural bee virus in water. Used for intracutaneous and intramuscular injection in the treatment of rheumatic diseases, sciatica, etc. Dose is started with 0.2 cc. and is increased up to ½ cc. Described by Wasserbrenner (Wien. klin. Wochenschrift, year 1928, number 35). Manufactured by Dr. Wolf, Bielefeld, Germany.

Asthmeudin. Contains camphor, methol, thymol, turpentine, eucalyptus and oleum pumilion. Used as a prophylactic agent and in treatment of aerogenic asthma. The throat and chest of patient are moistened with this preparation and capsules of the

preparation are placed upon the sheet at the level of the patient's head, so that he can breathe in vapors during the night. Described by Aronson (Deutsche prakt. Arzt., year 1927, pages 424). Manufactured by "Progreda" Chemische-Pharmazeutische Fabrik, Cologne-on-the-Rhine, Germany.

Auroprotasin. Colloidal solution of gold combined with an albuminous substance. Comes on market in form of 5 cc. ampulles. Used for intramuscular and intravenous injections. It is reported that patients stand the injections well. It is also reported by Lahr (Therapie der Gegenw., year 1928, pages 335ff) that good results have been obtained in the treatment of tuberculosis. Manufactured by Troponwerke, Koeln-Muelheim, Germany.

Avertin. Also known under the name of **Avertin** (E107) and has been tested by Eichholtz for its pharmacological properties and characteristics. This drug is tribromoethyl alcohol. It is a white, crystalline substance, which is soluble to the proportion of approximately 3% in water. Considerable work has been done on the use of this preparation and has been found to be a rapid and strongly active narcotic for rectal purposes. Has been used in numerous clinics and hospitals, especially maternity hospitals. Literature on the subject has reached large proportions. It is conveniently used; its action is both rapid and effective; and the patient stands the drug well. As with all narcotics, use of the drug is not free from danger and it must therefore be used with care. The amount of the dose varies according to the age and the body weight of the patient; on the average it is from 0.1 to 1 kg. Described by Beck (Monatbla. fuer Gebursth. und Gynaek, year 1928, numbers 4 and 5), by Dax and Weigand (Muench. med. Wochenschrift, year 1928, pages 599ff), by Domrich (Muench. med. Wochenschrift, year 1928, number 42), by Enke and Westphal (Zeitschrift fuer das gesamte Neurol, und Psychologie, year 1928, volume 114), by Eufinger (Muench. med. Wochenschrift, year 1928, pages 713ff), by Floerken and Mues, (Muench. med. Wochenschrift, year 1928, pages 596ff) by Gossmann (Zentralblatt Chirurgie, year 1928, number 7), by Grewing (Muench. med. Wochenschrift, year 1928, pages 1166ff), by Haach (Zentralblatt fuer Gynaekologie, year 1928, number 14), by Herzberg (Deutsche med. Wochenschrift, year 1928, number 25), by Hornung (Muench. med. Wochenschrift, year 1928, pages 595ff), by Kilian (Muench. med. Wochenschrift, year 1928, number 42), by Kohler, (Deutsche med. Wochenschrift, year 1928, pages 178ff), by Laewen (Zentralblatt fuer Chirurgie, year 1928, number 4), by Koller (Zentralblatt fuer Chirurgie, year 1928, number 14), by Kreuter (Zentralblatt fuer Chirurgie, year 1927, number 49), by Martin (Muench. med. Wochenschrift, year 1928, pages 842ff), by Nestman (Klin. Wochenschrift, year 1928, number 40), by Roth (Muench. med. Wochenschrift, year 1928, pages 598ff), by Straub (Muench. med. Wochenschrift, year 1928, pages 593 and 1279), by Toeller (Klinische Wochenschrift, year 1928, pages 961ff), by Heuss (Zeitschrift fuer aertzl. Fortb., year 1928, pages 422ff) and by Hildebrand (Zeitschrift fuer aertzl. Fortb., year 1928, pages 652ff). Manufactured by the I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany.

Bioplasma. A poultice of pasty consistency which contains boric acid and has an antiseptic action. The preparation is covered with a muslin coating. It is used for softening hard infiltrations such as those that occur in incipient panaritis and carbuncles and the like. Described by M. Stern (Muench. med. Wochenschrift, year 1928, pages 1277ff). Manufactured by Dr. Degen and Kuth, Dueren, Rheinlend, Germany.

Bromstrontiuran. This is a bromine compound of strontiuran. Strontiuran is itself a 10% solution of strontium-uranium-chloride-urea. It is employed for treating and alleviating itchy conditions in skin diseases. F. Betz has recommended its use in the treatment of migraine and epilepsy. (see Klin. Wochenschrift year 1928, pages 2419ff). Described by Meyer-Nobel (Therapie der Gegenw., year 1928, pages 566ff). Manufactured by Dr. R. and O. Weil, Frankfurt-am-Main, Germany.

Cafaspin. A mixture of 0.5 part aspirin and 0.05 part caffeine. Recommended for use in the treatment of colds, grip, headaches and rheumatic troubles. Dose is one tablet two to three times a day. Described by Riehl (Therapie Berichte, year 1929, page 31ff). Manufactured by the I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany.

Calcicum-Sandoz. Calcicum gluconate. A tasteless lime preparation well suited for oral administration as well as for intravenous and intramuscular injection. Dose is one small child's spoonful to one teaspoonful two to three times a day. Comes on market in the form of ampulles containing a 10% concentrated solution for use in intravenousand intramuscular injection. Described by Rothlin (Schweizer med. Wochenschrift, year 1927, pages 388ff), by Klare, (Muench. med. Wochenschrift, year 1928, number 50, page 3, 2135ff), by Kottmann (Schweizer med. Wochenschrift, year 1927, pages 409ff), by and Rodecurt (Med. Klin., year 1928, number 20). It has been highly recommended for treatment of gynaecological bleeding, being given intravenously for this purpose. (See Zalewski, Med. Welt, year 1928, number 46, pages 1715ff). Manufactured by Sandoz Chemische-Pharmazeutische Fabrik A. G., Basel, Switzerland.

Camphaquin. An aqueous, clear solution of Japanese camphor coming in the form of ampulles containing 2.2. cc. of either a 2% or a 10% solution. It is an analeptic and a cardiac. Described by Pachner (Wiener med. Wochenschrift, year 1927, pages 1709ff) and by Moravitz (Wiener med. Wochenschrift, year 1928, number 2). Manufactured by the "Sanabo-Chinoin" Fabrik Chemische-Pharmazeutische Produckte, Vienna, I., Austria.

Carboserin. This is an absorptive charcoal in the form of tablets used in the treatment of stomach and intestine disturbances and for the alleviation of the so-called anaesthesia catarrhs (nausea, vomiting and headache). Two tablets are taken before the operation, and the charcoal then present in the stomach combines with the swallowed ether and makes it uninjurious. Described by Hoelscher (Zetralblatt fuer inn. Medizin, year 1927, number 25, pages 1558ff), by Bremer (Muench. med. Wochenschrift, year 1927, number 51). Manufactured by the I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany.

Carnolactin. A creamy preparation made from milk and beef broth. It is supposed to contain Vitamin D and is therefore said to be an active preparation for use in the treatment of rickets. Described by von Hahn (Muench. med. Wochenschrift, year 1928, pages 947ff). Manufactured by the Kibo Chemische Pharmazeutische Gesellschaft. m. b. H., Frankfurt-am-Main, Germany.

Causyth. A combination of an irritant and a pyrazolon derivative. It is a grayish yellowish powder, supposed to have a pain alleviating action as well as an anti-inflammation action. Dose consists of two to four tablets taken several times a day. Described by Letzel (Wiener klin. Wochenschrift, year 1927, pages 604ff), by Duschak (Med. Klin., year 1927, pages 952ff), by Runes (Wiener med. Wochenschrift, year 1928, number 46). Manufactured by the Oesterreichische Heilmittelstelle A. G., Vienna, Austria.

Chlorthmol. A chlorothymol preparation containing iodine. It comes in the form of a brownish-yellow colored liquor, soluble in water and possessing a slight thymol odor. It has a strong germicidal action. Described by Gaertner (Zentr. Chir., year 1928, pages 122ff), by Plate (Zentr. Chir., year 1928, pages 123ff), and by Laubenheimer (Deutsche med. Wochenschrift, year 1928, pages 481ff). It is sold under the trade name of "Lavasan." Manufactured by the Gesellschaft fuer Fabrik, Physik und Chemie, Muenchen, Germany.

Chronex. A salve containing andriol and uranium and recommended for treatment of wet eczemas, acne and the like. Described by Nowak (Dermatalogische Wochenblatt, year 1927, number 32). Manufactured by Dr. H. Truttwin, Dresden, Germany.

Complamin. A preparation consisting of 0.15 part by weight of phenazelon, 0.1 part of the propyl ester of phenylquinolin-carboxylic acid, and 0.0075 part of calcium citrate. Comes in the

form of kernels which rapidly fall apart upon coming into contact with water. Dose is two kernels three times a day. Recommended for treatment of rheumatism. It is an analgesic and an antipyretic. Described by A. Waegner (Muench. med. Wochenschrift, year 1928, pages 2051ff). Manufactured by Johann A. Wuelfing, Berlin, Germany.

Ditonal. This preparation contains alsol, acetonal and amidopyrine. Recommended for use as an analgesic. It has been used in the treatment of a condition of acute inflammation of the uterus and its adnexa, in dysmenorrhoea and the like. Dose consists of one to four pads a day. Described by Holtschulte (Zentr. fuer Gynaekologie, year 1928, number 32). Manufactured by Athenstaedt and Redecker, Hemelingen, near Bremen, Germany.

Detoxin. A sodium compound of a product that is obtained by hydrolysis from dermatogen. It is sodium ceratinate and contains 1.9% of sulphur. Used in sub-cutaneous injection in the treatment of chronic articular rheumatism. Described by Treibmann (Med. Klin., year 1928, pages 1873ff). Manufactured by Johann A. Wuelfing Chemische Fabrik, Berlin, Germany.

Diufortan. *According to the data given on this preparation,* it contains iodine 17%, calcium 11%, and theobromine, 50%. It is free from potassium and salicylic acid. It has a diuretic action and is recommended for use in the treatment of nephritis. Described by Lebermann (Muench. med. Wochenschrift, year 1928, number 10). Manufactured by A. Jaffe, Berlin, Germany.

Dormiral. Chemically pure ethylphenylbarbituric acid. It comes on the market in the form of a powder or tablets (0.1, 0.2d and 0.3). For injection purposes 0.22 part by weight of dormiral in soluble powder form is used with 2 cc. of redistilled water. It serves as a hypnotic, a sedative and an anti-epileptic. Manufactured by Dr. Robert Heisler Chemische Fabrik, Chrast, near Chrudim, Czecho-slovakia.

Euglissin. A purgative consisting of paraffin, semen lini and semen psylli along with sagrada extract. Dose is one teaspoonful three times a day before meals. Described by W. Dueker, (Med. Klin., year 1928, pages 457ff). Manufactured by the Chemische Fabrik Gruenau A. G., Berlin-Gruenau, Germany.

Ferronovin. Made from liver tissues of young animals and combined with iron oxide (see Siderac in this list). Comes in the form of a brownish colored powder. Dose is one tablespoonful three times a day taken in water or milk. Recommended for the treatment of anemia and weakened conditions. The preparation is taken either during the meal or after the meal. Described by Bickel (Med. Welt, 1927, numbers 4 and 44), by Moldawsky (Klin. Wochenschrift, year 1927, number 42), by Joachimglu (Deutsche med. Wochenschrift, year 1928, number 40) and by Abel (Med. Klin., 1929, number 1, page 27ff). Manufactured by the Chemische Fabrik Promonta, Hamburg, Germany.

(Second installment next month)

Foreign Trade Opportunities

Department of Commerce, Washington, D. C., has received for drugs and pharmaceutical products. Reserved information can be obtained from the Bureau of Foreign & Domestic Commerce of the Department of Commerce, and at its district and co-operative offices by duly registered firms upon written request by opportunity number.

Capsules, gellatin, empty, of all sizes.	36494	Athens, Greece	Agency.
Cosmetics and perfumes	36493	Hamburg, Germany	Do.
Drugs, crude	36492	do	Do.
Manicuring preparations, polishes, and cuticle removers.	36502	Halifax, England	Do
Medicines, prepared	36621	Tientsin, China	Both
Perfumery	36594	Montevideo, Uruguay	Purchase.
Pharmaceuticals and toilet preparations.	36496	Buenos Aires, Argentina.	Both.
Do	36526	Hong Kong, China	Agency
Toilet preparations	36607	Bombay, India	Both.

Patents Issued

UNITED STATES PATENTS

Ammonium Hydroxyacetylaminophenylarsenate

This compound along with an alkali salt of sulphurous acid, such as sodium sulphite, is used in a compounded mixture along with water for medicinal purposes. E. Fourneau, Paris, France. U. S. Patent No. 1,697,910, filed Jan. 18, 1927.

Formates

Formates of the cyclic series are formed by acting upon alcohols of cyclic compounds with carbon monoxide at an elevated temperature and in the presence of alcoholates. R. Wietzel and F. Kremp, Ludwigshafen-on-Rhine, Germany, assignors I. G. Farbenindustrie A. G., Frankfurt-on-Main, Germany. U. S. Patent No. 1,698,573, filed April 27, 1928.

Glycerin by Fermentation

A process for the production of glycerin consists in fermenting sugar with yeast in an alkaline solution and after partial fermentation separating the yeast from the mash and then distilling off the fermentation products boiling below a temperature of 100 degrees C from the fermented mash. Thereafter a fresh quantity of sugar is added and the recovered yeast as well to the remaining mash and the mixture is refermented. The process is repeated until the glycerin content of the fermented mash has reached the desired concentration. K. Luedecke and N. Luedecke, Berlin-Dahlem, Germany, filed July 15, 1926.

Lavage Process and Product

Hair is treated by applying to it a laving quantity of a nearly anhydrous cleansing agent composing isopropanol. A minor proportion of tertiary butanol is also contained in the preparation. C. Ellis, Montclair, N. J. U. S. Patent No. 1,700,035, filed Jan. 19, 1928.

Purifying Amniotic Fluid

The process of purifying amniotic fluid consists in separating and preserving a fraction of such amniotic fluid which is insoluble at certain intermediate alcohol concentrations and discarding those fractions which are insoluble at lower alcohol concentrations and those which are soluble at higher alcohol concentrations. J. P. Scott, Indianapolis, Ind., assignor, E. Lilly & Co., Indianapolis, Ind. U. S. Patent No. 1,699,479, filed April 27, 1928.

Toilet Accessory

A massaging device consists of a textile fabric which is impregnated with coagulated albuminous material and which possesses a wrinkled surface. S. D. Rothstein, Gainesville, Ga.

Ampulle Container and Applicator

The container and applicator consists of a hollow body of compressible material. The body has a tubular extension open at one end, and the body is closed at all other points. A nozzle provided with a socket portion fits over the extension. This nozzle is provided with a reduced tapering outlet member connected to the socket portion by a conical section. The nozzle is relatively incompressible. C. J. S. Herzog, New York, N. Y. U. S. Patent No. 1,699,965, filed May 4, 1927.

GERMAN PATENTS

Hydrogen Peroxide

Hydrogen peroxide is made by electrolytic reduction of oxygen. The gaseous stream is selected so large in comparison with the volume of electrolyte that the allowable maximum pressure of the cell is not overstepped on the sudden complete decomposition of the formed hydrogen peroxide. I. G. Farbenindustrie A. G., Frankfurt-on-Main, Germany. German Patent No. 464,288, filed April 5, 1927.

Colloidally Soluble Cholesterin Products

The alcoholic solutions or aqueous emulsions of cholesterin and animal or vegetable phosphatides in aqueous solution are mixed with gallates. In certain instances precipitation takes place after acidification. J. D. Riedel A. G., Berlin-Britz, Germany. German Patent No. 464,674, filed May 3, 1925.

Transparent Soaps Containing Perfumes, Medicaments, Etc.

The medicaments and perfumes are mixed with alcohol and a small amount, one to five per cent., of a cellulose ester, such as cellulose acetate, and then added to the soap. P. Villaim, London, England. German Patent No. 464,638, filed Nov. 5, 1924.

Stable Sterilizable Solutions Containing Organic Phosphorus

Complex gold-sodium thiosulphate solution is allowed to act upon solutions of dialkylaminoarylphosphinic acid salts, or else the solid substances are first mixed together and then the mixture is dissolved. L. Cassella & Co. G.m.b.H., Frankfurt-on-Main, Germany. German Patent No. 463,805, filed June 23, 1925.

Medicament Against Tuberculosis

Tuberculosis and other diseases of a similar character are treated with a medicament which is made from the seeds of Pinus sylvestris or like trees. These seeds are treated with water, aqueous solutions of salts or organic solvents, and in certain instances the seeds are first dried before being extracted with these solvents. The extract is then subjected to electro-osmotic treatment and a medicinal is obtained. Dr. G. Zuelzer, Berlin, Germany. German Patent No. 463,803, filed Feb. 7, 1925.

Preserving Bacteriophages

The bacteriophages are combined with crystals of common salt, Glauber's salt or other neutral salts with the addition of high molecular weight saturated and unsaturated monovalent alcohols in such a manner that the majority of the bacteriophages are found within the crystals. Dr. Madaus & Co., Radeburg, Dresden, Germany. German Patent No. 464,640, filed August 27, 1925.

Tooth-Filling Composition

This consists of a solution of natural and preferably Syrian asphalt in a solvent, which is preferably benzene, with or without the addition of a substance which does not allow the passage of X rays. E. G. Hedstroem, Stockholm, Sweden. German Patent No. 464,612, filed Oct. 19, 1926.

Injection Medicament Against Tuberculosis

This is made from bulbous growths of leek-like character. This onion-like plant, known as Allium scorodoprasm, and garlic are dry distilled at a temperature of 100 to 600 degrees C and the distillate thus obtained in filtered and purified. K. Kubota, Hamada, Machi, Japan. German Patent No. 464,614, filed, Nov. 21, 1925.

BRITISH PATENTS

Arsenobenzenes

Arsenobenzenes are prepared by the reduction of an aromatic arsenic compound, or a mixture of two different aromatic arsenic compounds, in an acid medium using as reducing agent a mixture of hypophosphorous acid or a salt of the acid with sulphurous acid or a sulphite. The proportions of hypophosphorous acid may be widely varied without affecting the nature of the product, but in the case of the sulphurous acid, there should not be present more than one third of a molecular proportion for each molecular proportion of the arsenic compound. A. Albert, Munich, Germany. British Patent No. 300,716, filed Aug. 26, 1927.

Glucosides

The cardioactive glucoside of Bulbus Scillae is separated in the presence of aqueous media into two components by processes of fractional dissolution, fractional precipitation or fractional extraction from aqueous media by means of organic solvents. The separation may be effected using the actual glucosides or their compounds with tannin. Lead hydroxide is used as a precipitant. Ethyl acetate is used as a solvent, as well as methanol, while chloroform is used as an extracting medium. Chemical Works, Formerly Sandoz, Basel, Switzerland. British Patent No. 300,726, filed September 1, 1927.

Organo-Mercury Synthetic Drugs

By treatment of 1-phenyl-2: 3-dimethyl-3-sulphamino-5-pyrazolone with mercury salts, compounds are produced containing one atom of mercury to four molecules of the pyrazolone and possessing therapeutic properties. An example is given of the intersection at a temperature not exceeding 50 degrees C of the pyrazolone with a solution of mercuric oxide in sulphuric acid. Tasch Laboratory Ltd., Basle, Switzerland. British Patent No. 301,023, filed Nov. 8, 1928.

Thymol and Menthol

Thymol and menthol are obtained by heating oxythymol with hydrogen in the presence of a hydrogenation catalyst, whereby water is split off and at the same time two or eoght atomic proportions of hydrogen are respectively taken up. The reaction may be effected under pressure or in the presence of a solvent such as menthane. In addition to the hydrogenation catalyst, a porous catalyst may be present such as bleaching, florida, or fuller's earth, siliceous clays, frankonites, diatomites or kieselguhr, or the hydrogenating metal may be precipitated on the porous catalyst. Schering-Kahlbaum A. G., Berlin, Germany. British Patent No. 301,087, filed Nov. 23, 1928.

Quinone-Indoles

Compounds of this type with the indole nucleus connected at its 2:3 position are prepared by converting a benzyl-aminoquinoline into a carbazole by the usual methods, or by subjecting an amino-carbazol to the quinoline synthesis. The products are useful therapeutically and also as intermediates for the manufacture of other pharmaceuticals. I. G. Farbenindustrie A. G. Frankfurt-on-Main, Germany. British Patent No. 300,279, filed Nov. 9, 1928.

Organic Arsenic Compounds of Iodine

The manufacture of such compounds is described. Mention is made of 3-Amino-4-hydroxy-5-indophenylarsinic acid and others of like sort. A. D. Macallum, Perth Amboy, N. J. British Patent No. 300,286, filed, May 4, 1927.

Synthetic Drugs

These drugs are complex compounds of cadmium, lead, palladium, copper or gold with ethylenethiourea, which are obtained by treating a salt of the metals with the latter compound. The compounds contain various proportions of the metal, the etylenethiourea and an anion such as nitrate, chloride, bromide, acetate. G. T. Morgan and F. H. Burstall, Teddington, Middlesex, England. British Patent No. 300,330, filed Aug. 25, 1927.

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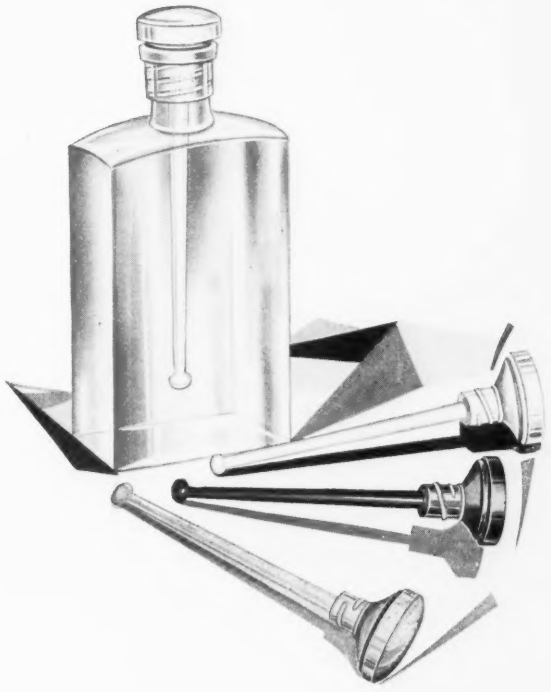

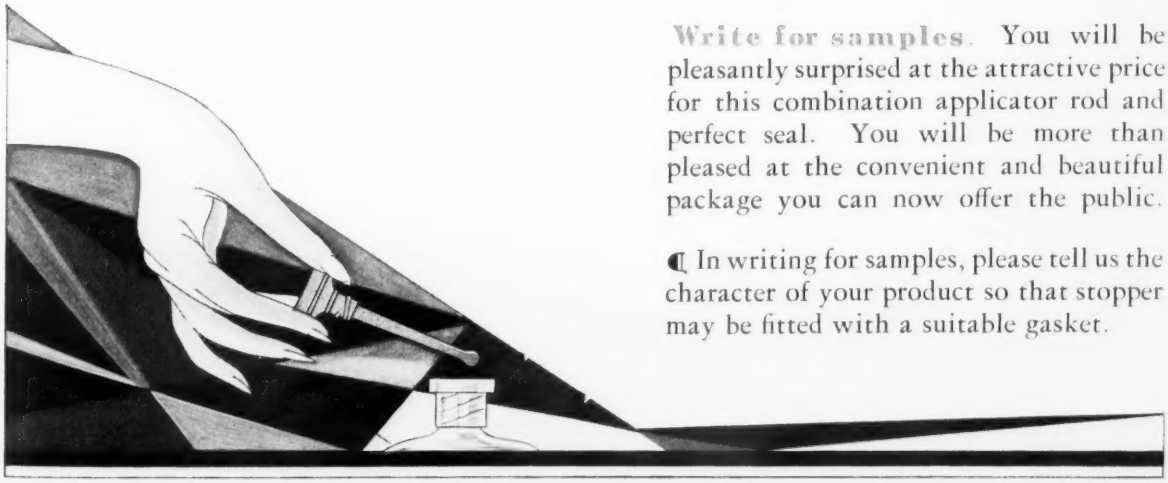

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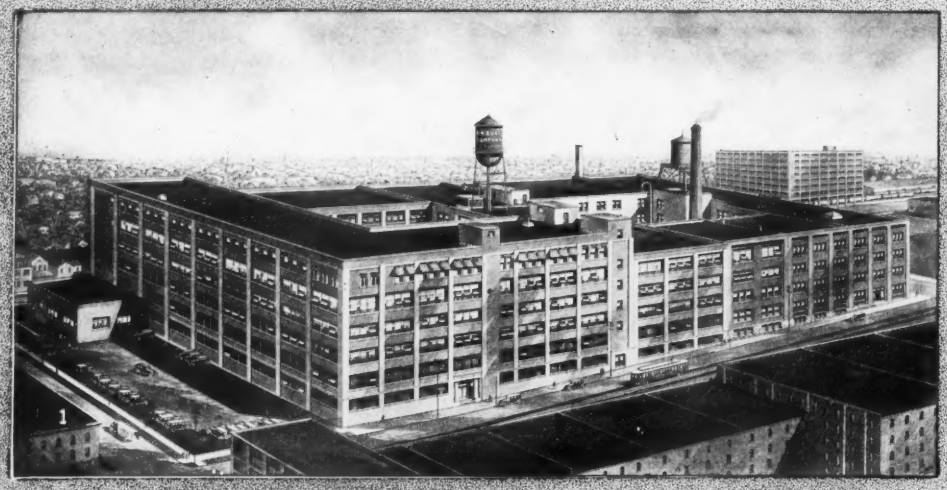

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Ethical *and* Proprietary *Selling*

A consensus of the opinions of sales managers of leading drug manufacturers, some of whom advertise their products in the ethical fashion and some to the public, is given, telling the reasons why manufacturers choose to follow one course or the other.

TO be "ethical" or not to be "ethical"; to be "proprietary" or not to be "proprietary"; that is the question. Whether it is better to merchandise after the manner of the first group of remedies or after the fashion of the second; is the problem which often troubles the manufacturer. What are the comparative advantages of these two methods of merchandising? What are the considerations which enter into the question of which method to use? Is there or should there be any doubt in the mind of the manufacturer as to what course is open to him? The answer to this last seems to be no, according to sales managers in both the "ethical" and "proprietary" field.

Selection of Terms

These two terms as used here, are merely "after a manner of speaking" and for the sake of convenience in terminology. Although these two terms have become quite widely accepted, they find no particular favor, especially with the manufacturer of "proprietaries." He feels that he is just as ethical in the ordinary dictionary interpretation of that word—i.e., in the sense signifying "in harmony with moral principles"—as the manufacturer of "ethicals." He thinks a more appropriate designation would be "publicly advertised" remedies as against "non-publicly advertised" remedies. As used in this connection, however, the term "ethical" is generally accepted as designating those remedies which are offered and advertised to the medical profession and prescribed by members of the profession. "Proprietary" remedies, on the other hand, have come to mean those which are advertised and offered directly to the lay public, without the intermediary step of the doctor or physician.

Aside from the ethics involved, the differentiation is essentially one of merchandising method. The first consideration in determining the method is, of course, the product. There are some products whose very nature determines whether they shall be "ethical" or "proprietary." The cost of production may be so high that public demand could never be created. Public advertising may be made impossible by the type of disease for which the remedy is designed. Its use or application may be so involved or so technical, that the public could not be "educated" to it by any amount of advertising. Products of this nature naturally eliminate themselves from discussion.

When the product could easily be either "ethical" or "proprietary" the considerations multiply. In the case of the "ethical" product, the product itself, is not the only thing that counts. The prestige of the house sponsoring it is of primary importance. The reputable doctor or physician will not prescribe a remedy unless he is confident in his knowledge of the house which sponsors it. This natural tendency is aggravated by the fact that the doctor is increasingly feeling that he is being used unjustly. Too often he has seen products introduced "ethically" and then, when he, and the other members of his profession, have helped to make the lay public familiar with the product, it has been taken out of his hands and sold on a "proprietary" basis. He realizes that there is nothing inherently wrong in such a procedure, but he cannot help but feel that he has been taken advantage of. This has the result of increasing his conversatism with regard to new "ethical" products when he has not entire faith in the stability and character of the house producing it. This feature of the doctor's attitude is very important to the "ethical" house and often accounts for the fact that such a house, although making some products which could easily be merchandised as a "proprietary," refrains from doing so because it fears that the reaction of the medical profession will be unfavorable to all its other products. The feeling that one cannot serve two masters is quite general, despite the fact that there are outstanding examples of houses producing both "ethicals" and "proprietaries."

Matter of Capital

In the final analysis, the question of the proper merchandising system resolves itself into one of capital. Granting that a product has merit and could be sold in either way, it can be made a national success as an "ethical" often for a great deal less than a

Here is all it Now costs to Telephone

60¢ New York-Philadelphia Hartford-White Plains Chicago-South Bend Cincinnati-Lexington Milwaukee-Chicago	**75¢** Scranton-New York Indianapolis-Dayton Decatur-St. Louis Philadelphia-White Plains Ashland-Cincinnati	**$1.15** Houston-Shreveport Pittsburgh-Detroit Montreal-Albany New York-Washington Waterloo-Omaha
$1.35 Boston-Philadelphia St. Louis-Chicago Indianapolis-Cleveland Milwaukee-Detroit Montgomery-Nashville	**$1.65** Atlanta-Memphis Cleveland-Milwaukee St. Louis-Omaha Baltimore-Boston Phoenix-Los Angeles	**$1.95** Chicago-Toronto Denver-Wichita Dallas-Kansas City Atlanta-New Orleans Pittsburgh-Boston
$2.35 New York-Dayton Dallas-St. Louis St. Paul-Detroit Boston-Cleveland Denver-Kansas City	**$3.00** Chicago-New York New York-Atlanta Chicago-Dallas St. Louis-Philadelphia Montreal-Chicago	**$8.75** Coast to Coast (New York-Los Angeles)

This assortment of "samples"—basic day rates—shows how little it costs to talk and get your answer

ONE very essential thing about calls to distant points is the new low rates, but more important is what they will accomplish.

For example, one call from Ohio to Virginia, costing $2.10, sold 10 carloads of flour.

A call from Mississippi to New York closed a $150,000 wholesale dry goods order.

A call from New York to South Carolina costing $3.65 completed a real estate transaction of $160,000. A telephone conversation from New York to Toledo purchased a million dollar flour mill.

Not that one call always closes the deal. As a matter of fact by far the greatest value of telephone calls to any company is their regular daily use in developing business.

What out of town people should you call now?

Service to points near and far is so speedy that the operator will probably ask you to hold the line.

Calling by number takes less time.

Bell Telephone Service . . . *Quick* . . . . . *Inexpensive* . . . . *Universal.*

hundred thousand dollars, while to establish it successfully as a nationally known "proprietary" would take capital running into the several hundred thousand. The initial cost stands in relation of about 20 to 25 to 1. The "ethical" generally shows a profit in the second year while a "proprietary" must be able to stand the advertising and merchandising pace for a much longer time before it begins to pay back the capital which it demanded at the start. In each case, of course, the return is in proportion to, and commensurate with the initial outlay. The number of people capable of being turned into boosters of a "proprietary" is limited only by the population, while the number of potential boosters for an "ethical" product is limited to about 135,000 physicians and 50,000 druggists.

It is this difference in the size of the potential market which accounts not only for the vast difference in required capital, but also in the differences in merchandising costs. Advertising expenses are naturally far heavier in the case of the "proprietary" which must use an extensive magazine and newspaper campaign as well as advertising of other descriptions. The "ethical" remedy, on the other hand, is restricted in its advertising to a few medical and pharmaceutical journals, and direct-by-mail work with the doctors and druggists. Production costs, as might be expected, are higher, in proportion, in the case of the "ethical." The "ethical" house must maintain extensive laboratories and research work, while producing a number of items in comparatively small quantities. The product of the "proprietary" house, once established, is the result of mass production and standardization, with resulting low costs of production.

Why Proprietaries Were Ethical

When all these facts are taken into consideration, it becomes plainly evident why so many products, sold to-day as proprietaries, originated and developed for many years as "ethicals." In that fashion they could start in a small way with comparatively little capital, through the doctor build up a steadily increasing demand, and finally with distribution secured and a scattering of people educated through the doctor to their use, they could take the capital secured from the "ethical", and with it launch the campaign directly to the lay public. This seems to be a logical and sensible development, though many call it unethical. At any rate, it is one way of surmounting the merchandising problem, which is essentially one of financial resources, involved in deciding whether to sell as a "proprietary" or as an "ethical."

A compound of powdered cinchona bark, quassia bark, yarrow root and rosemary leaves, to be used in the manufacture of an Italian medicine, should be taxed as a non-enumerated manufacture at 20 per cent. under Paragraph 1,459, according to another ruling by the court. The decision is in favor of Joseph Personeni, an importer who protested against a duty of 25 per cent. assessed under Paragraph 40, which provides for flavoring extracts.

We Read That---

He Demands that Manufacturers Choose Between Him and Chains

Like voices which arose during the early machine era, speakers and writers with custom-made plans for the solution of our perplexing distribution problem arise on every hand.

Strangely enough, many of these plans bear a startling resemblance to those early advocates of labor who saw no chance for the survival or satisfactory economic existence of labor except through destruction of the mcahines.

"Sales Management" of March 2, C. J. Whipple, president of the largest hardware wholesale house of Hubbard, Spencer, Bartlett & Company, writes:

> I feel very certain that the manufacturer will have to decide, very soon, whether he will cast his lot with the chains, mail-order and co-operative organizations, or whether he will refuse to sell these units and come to the jobber with a policy of full 100 per cent. co-operation. I do not believe he can sell identical merchandise to both and grow and make a profit.

And again:

> We do not feel that it is going to be to our interest to sell the identical merchandise the co-operative houses and the chains and the mail-order houses do. We put it up to our factories frankly and tell them that if they sell such concerns, it is our privilege to select another line of merchandise. This represents the trend of our new sales policies.

Mr. Whipple is not the first nor will he be the last to throw down the gauntlet to the chain. It seems to be more the impression of the wholesaler than of the chain store that the conflict between the two is a direct one for survival, rather than a parallel development of two equally useful systems of distribution.

By his new policy Mr. Whipple forces the decision of the manufacturer, a particularly daring move in this day of national advertising and the obligations for volume and general distribution which the huge expenditures for publicity bring. Because the national advertiser can afford to neglect neither the large consuming population now trading in chain stores, or the considerably larger one to which the wholesaler is an intermediary.

To provide one brand for the chain, another for the mail-order and co-operative, and a third for the wholesaler, is certainly a step away from simplification, a division of sales effort, and a practical nullification of effective advertising which will appeal to few successful manufacturers with reputations known to the public.

We submit that Mr. Whipple's plan will tend to make the wholesaler a distributor of unadvertised merchandise and a stepping stone for manufacturers whose brands are growing to national prominence.

Down in Baltimore

THE Emerson Drug Company said "good-bye" to their sealing problems long ago when they decided to top off Bromo-Seltzer and their Aperio with the Duplex Seal.

Now, with its adoption for the smallest size Bromo-Seltzer, Duplex becomes "standard equipment" on the entire line of Emerson Drug products.

Down in Baltimore they know that the Duplex Seal builds good-will. It's so convenient—just a quarter turn of the wrist and presto, the bottle is unsealed. Just a quarter turn of the wrist and it's re-sealed to keep the merchandise air-tight. No matter how many times a bottle sealed with a Duplex is opened and then re-sealed, the product keeps its original quality until it's all used up.

Moreover, in shipment no amount of rough treatment makes the Duplex Seal "creep" or work loose. It stays firm always to protect the product it seals. There's no other seal like the Duplex Seal!

The Duplex Seal

A PERFECT SEALING & RE-SEALING CAP FOR GLASS BOTTLES, JARS & TIN CONTAINERS

NATIONAL SEAL COMPANY, INC.

Executive Offices and Works: 14th Avenue and 37th Street, Brooklyn, N. Y.
20 W. Jackson Blvd., Chicago, Ill. Newport Bldg., 68 Devonshire Street, Boston, Mass.
Pacific Coast Representatives: Morgan & Sampson—869 Folsom Street, San Francisco, Calif.
State of Kentucky Representatives: Lewis & Culp—226 North 15th Street, Louisville, Ky.
State of Texas Representatives: James Brokerage Co.—329 First National Bank Bldg., Houston, Texas
Sales Agents for British Empire and Holland: L. Lumley & Company, Ltd.—120-121 The Minories, London, E. 1, England

We Must Not Lose the Independent

In "Nation's Business" for March C. D. Garretson, president of Electric Hose & Rubber Company, has the following to say:

> There is no denying that our manufacturing industries would languish if any appreciable number of manufacturers were compelled to distribute entirely through chain and mail-order systems.
>
> Even the largest consolidations of producers require the open channel of independent distribution for their healthy operation. It is therefore necessary for every manufacturer who is worthy to remain in business to join intelligent wholesalers in co-operating with independent retail dealers to aid them in the utilization of principles and methods necessary to meet the new competition.

In the particularly able discussion that follows, he brings out what we believe to be the single answer to this highly confusing issue—the success of both wholesaler and independent dealer lies not in appeal to sentiment, predjudice, restrictions through legislation but in adapting the same economics, skill in merchandising and selling which are the foundation of the chains' success. Mr. Garretson puts this concisely and clearly when he says:

> Although the public is vitally interested in the survival of the independent retailer, it is impossible to secure public favor by appeals to sentiment and predjudice. The chain stores and mail-order branches have developed because they have taken advantage of the changed buying habits brought about by the war and other economic opportunities. To meet this competition, the independent retailer must conform to the new ways of doing business.

And further:

> The truth is that we must have a revolutionary, progressive development throughout the entire field of distribution, and it follows that the manufacturer and wholesaler must have even more to do with it than the retailer.

Business Must Be Profitable

Turning to an enlightened discussion of production of an essential raw material which is going through an economic crisis such as has often been brought before the drug trade in its raw materials as well as in its manufactured products, A. J. Boyles, president of Tide Water Associated Oil Company, writes in "Review of Reviews" for March:

> In order to render efficient service the oil business must be profitable. But it cannot be profitable, if it continues in alternative periods overproduction and threats of undersupply—of feast in some of its branches and of famine in others—without co-operation from within or control from without.

And:

> What of to-morrow, if, through failure to stabilize by sound economic co-operation—through failure to make the sacrifices of peace—we continue the sacrifices of war? The day is past when victory can be attained in the warfare of uneconomic industrial competition, as surely as the day is past when the shock of arms leaves a real victor in the field.

We hear much to-day of rationalization of industry, of trade conferences, and of national codes of ethics. So rapid does the growth of opinion seem to be, both among business leaders and Government officials, that economic practices once held in horror, may prove a blessing in disguise—that we may one day see the very laws once raised to protect the small business man torn down to save him.

Who can say that this generation may not see a general recognition that production or sales without a legitimate profit, or at a deliberate loss, is as much an invasion of social rights as we have so far regarded monopolistic price agreements.

Norway Controls Cod Liver Oil Purity

Steps to improve the quality and uniformity of the medicinal cod liver oil exported from Norway are being taken by the government of that country, according to a report from Marquard H. Lund, United States commercial attache at Oslo.

Cod liver oil intended for domestic consumption has been under government supervision for some time and regulations have just been issued to extend similar supervision to oil extracted for export which is intended for medicinal purposes and human consumption. These regulations have not yet been published in detail, but it is understood that they will confine the pressing of oil for human consumption to cod, haddie and coal fish. Inspectors under the Norwegian Ministry of Commerce will examine plants, equipment, methods and raw materials of the oil extractors, and detailed regulations are to be issued regarding the permissive practices in manipulating the livers. Each export shipment is to be certified by a chemist licensed by the government, and the Ministry of Commerce will prescribe the method to be used in determining the vitamine content of the oil. Producers are to pay a tax of 1 kr. (26.3 cents) per 100 kilos for this service.

Mr. Lund reports that leaders in the Norwegian cod liver oil industry are pointing out the need for a central organization for the exportation of their oil, and propose rigid standards of quality and grading and exploition under a single trade mark, similar to the export machinery for cheese in Switzerland.

The control over the quality of the oil will be brought about through the formation of the Vitamin Institution of Norway, under the supervision of Prof. Paulson. The Institute will issue to producers, after tests have been made by their chemists, certification of purity of the product, namely that it qualifies under the requirements of the United States Pharmacopoeia for oil for human consumption.

A. L. Van Ameringen, New York, have plans for the erection of a new one-story plant 75 by 150 feet, near Mountain View, N. J., to cost $40,000 with equipment.

No blindfold test needed

to find the closure housewives prefer

You can pick the closure consumers prefer with your eyes wide open; no need for a blindfold test . . . There's proof of the consumer's preference for Amerseal in a nation-wide Survey★ recently conducted. 69.5% of 8028 housewives interviewed chose Amerseal as their preference from among five common types of glass container closures. . . . The reason is simple. "So easy to open—so easy to reclose." . . . Try it yourself. Amerseal's advantages are immediately apparent—advantages to the manufacturer that are as important as Amerseal's convenience to the consumer.

★ The book, "Glass - Packed Products from the Consumer's Point of View," tells the story of this Survey. If you haven't read it, send for your copy now.

THE AMERSEAL CAP

AMERICAN METAL CAP COMPANY

2 SUMMIT STREET BROOKLYN, N. Y.

Boston..... Chicago .....Cleveland
Detroit ..... Louisville ..... Memphis
Philadelphia.... Pittsburgh ....St. Louis
Los Angeles....San Francisco....Seattle
Toronto

News of the Drug Industries

A Lull in Washington

WASHINGTON.—The expiration of the 70th Congress at noon on March 4 meant the passing temporarily into Limbo of a number of measures of interest to the drug trade, with the prospect, however, that many of them will be revived after the 71st Congress shall have assembled in special session April 15 on the call of President Hoover.

One of the measures concerned was a bill introduced by Representative Merritt of Connecticut to amend the caustic acid law by relieving physicians' prescriptions, certain large packages of caustic acid, and oxalic acid preparations from the provisions of the bill. In connection with this measure it is understood that the drug trade would like to see the caustic poison law brought back to its original purpose of applying to household lye alone, practically.

Only a few days before adjournment of Congress did the House Committee on Interstate and Foreign Commerce vote to "receive" the report of the Merritt subcommittee on the Kelly-Capper resale price maintenance bill. The committee had not yet "received" the report of the Federal Trade Commission on its investigation of resale price maintenance, which had been sent down to the Government Printing Office for printing, but had been caught in the jam of public printing that always occurs towards the close of a session of Congress. Supporters of price maintenance legislation are hopeful of favorable action on the subject by the new Congress, but others are by no means optimistic.

Manufacturers of narcotic drugs made known their estimated needs of crude opium and coca leaves for the six months beginning July 1, at a recent meeting of the Federal Narcotics' Control Board, which is fixing allotments of these materials that may be imported into the United States and issuing permits for such importations.

Narcotic Bills Dead

A number of narcotic bills died with the last Congress, including the following: bill making the physician in charge of the narcotics' division, public health service, an assistant surgeon general; bill to create a joint congressional committee on the narcotic traffic, to investigate the narcotic situation and make recommendations; bill authorizing the appointment of narcotic inspectors or agents of the prohibition bureau to duty in foreign countries; bill authorizing the prohibition commissioner to pay for information concerning narcotic law violations.

There is reported to be a movement afoot to have the narcotic law amended so as to cover mari juana, Indian hemp, peyote and other drugs alleged to have narcotic qualities.

Army Pharmacy Corps Bill

Drug trade interests plan to revive in the new congress the bill to establish a pharmacy corps in the army, which was the subject of hearing not long before adjournment of the recent congress, before the House Committee on Military Affairs. At that hearing trade representatives made a notable showing that army doctors did not know as much as they ought to know about prescriptions to be filled in the drug shops at military hospitals, posts and the like, and that enlisted men assigned to duty in such shops hold positions of grave responsibility in the matter of filling or passing judgment upon prescriptions which may be erroneous.

It is too early yet for the Department of Agriculture to have worked out a program of legislation for the new Congress, officials say. However, the slack package bill to amend the food and drugs act is on a tentative list for revival.

Another measure that may be on the list eventually is reported in trade circles to have been drafted already in the office of the Secretary of Agriculture. The object of this tentative measure is to secure control over advertising of food and drug products and the like in newspapers and other mediums. This would be accomplished by amending the food and drugs act. Officials assert that this measure has not been decided upon, but as indicative of the strength it is acquiring, they point to members of Congress who are said to feel that legislation should be enacted to deal with advertising.

Officials say that most trade associations are advocating ethical control measures over advertising and could not consistently endorse what officials characterize as "unrestricted, even licentious" advertising of food and drug products. However, evidence is not lacking that all branches of the drug trade will unite in bitter opposition to legislation for control of advertising, in connection with the food and drug law. And it is believed they will have plenty of support from newspapers, trade journals, magazines and other advertising mediums, as well as advertisers in many lines, including fruit, foods, toilet articles, soap, etc.

Dr. Adolph C. Midthun of Chicago has been appointed assistant medical advertiser in the Food, Drug and Insecticide Administration and will report for duty April 1 with the collaborative investigation unit under Dr. L. F. Kebler, who is assigned to co-operate with the Postoffice Department in pursuit of alleged remedies advertised and shipped through the mails, and which are constantly being put out of business by postoffice fraud orders.

There will be two other appointments of medical experts to the F. D. I. if and when they accept offers made by the Department. The U. S. Civil Service Commission has certified several eligibles to the Department, for selecting appointees, but the department is handicapped by the high standards required by the authorities taken in conjunction with the low compensation that is allowed by law.

Waterbury with Pepsodent

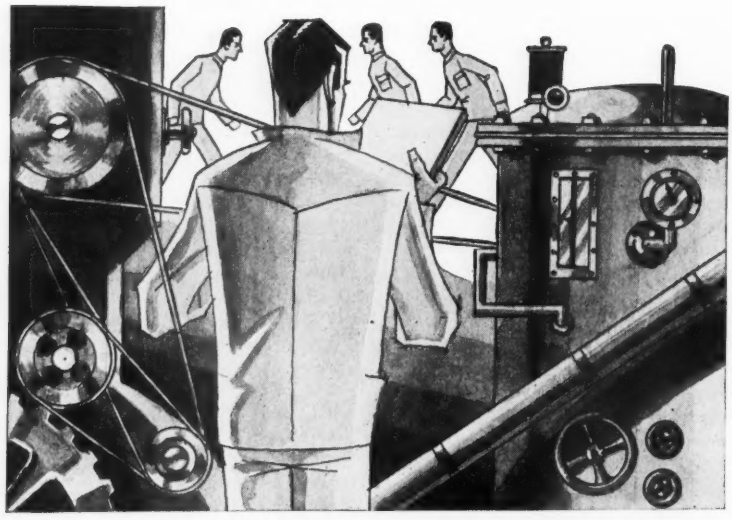
C. H. Waterbury has joined The Pepsodent Co., as special representative. For the past few years Mr. Waterbury was sales manager for Lehn and Fink. Prior to that he was secretary of the National Wholesale Druggists' association.

Merger of Chains

West Frankfort, Ill.—A million-dollar merger of the Cline-Vick Drug Co., operating drug stores in eight principal southern Illinois cities with the H. A. Woods Drug Co. which has extensive wholesale business as well as 11 stores in Indiana, was announced recently. Leo V. Cline and S. S. Vick, founders of the Illinois group will be in active charge of the combined group which has a business of more than $2,000,000 annually. Illinois stores are located Benton, Carterville, Harrisburg, Herrin, Johnston City, Marion, West Frankfort and Zeigler.

Uno Manufacturing Co., of 501 West Division st., Chicago, has altered its name to the Barnett Chemical Co. The address remains the same.

Lambert Co., rents space on the ninth floor of the Postum Building, 250 Park ave., New York.



"Speedy" Lynes at work

Yourr Production Man and His Reports

"SPEEDY" LYNES, production man of *Yourr* Chemical Corporation, is chiefly concerned in *speed.*

But experience has taught him a thing or two.

He knows that he cannot sacrifice quality of product or appearance of package simply to shorten the hours of production.

Speed has been known to defeat itself. Products of inferior quality or packages with carelessly applied labels and unattractive, inconvenient closures invariably handicap sales. This, in turn, limits production, the basic element of speed.

Perhaps "Speedy" Lynes has been guilty at numerous intervals of bringing extra pressure to bear on the Purchasing Agent of *Yourr* Chemical Corporation in an effort to secure better raw materials and more efficient packaging supplies. You can't blame him for this. What if his chief concern *is* the figures on his production reports. It's all for the good of the organization.

Speed is made possible only by having sufficient production. Production is made possible only by sales. And larger and more numerous sales are made possible only by packing good products in dependable, attractive and convenient packages.

PHOENIX
Metal Caps

THE TWO-PIECE C T CAP is used to seal medicinal preparations and dietetic products which require the added protection of vacuumizing or sterilizing.

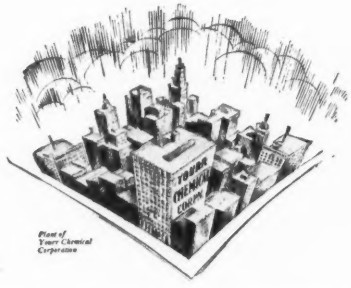
It consists of a sanitary lacquered cap shell and disc into which an odorless and tasteless rubber composition has been flowed.

Supplied in standard sizes ranging from 38 m/m to 83 m/m in diameter.

PHOENIX-HERMETIC COMPANY
Metal Caps for Glass Packages

CHICAGO NEW YORK

Offices: Rochester, Philadelphia, Boston, San Francisco, Los Angeles, Cleveland, St. Louis
Offices and Plants: 2444 W. Sixteenth St., Chicago, Ill ; 14th Ave. and 38th St., Brooklyn, N. Y



**Yourr* Chemical Corporation is purely a creation of the imagination. Its buying, manufacturing and sales problems, however, are very likely to be similar to the problems of *your* chemical corporation.

Articles about *Yourr* Chemical Corporation will appear each month in this publication. If you have missed any of the previous articles in this series we will supply reprints together with a booklet describing the plan and purpose of this hypothetical organization.

Write the Promotion Department of Phoenix-Hermetic Co The address is 2444 W. Sixteenth St., Chicago.

Drug Trade Dinner Pronounced Success

Far outshining any of its predecessors both from the point of attendence and friendly spirit prevailing, the Drug Trade Get-Together started off on Thursday, the 14th, with its famous reception preceding the formal dinner. There never seemed to be so much shaking of hands and so many people glad to see one another as at that reception.

Not less than 450, and more nearly 500 was the attendance. From all branches of the drug trade they came. High executives from the drug manufacturing concerns rubbed elbows with those from the raw material supply houses. Sales managers, purchasing agents, chief chemists, heads of shipping, accounting, credit, and all other departments were there to meet everyone else in the drug trade.

It was a grand occasion that will be long remembered by those who attended. Everyone there must be better friends with one or more persons in the trade as a result of his attendence at the dinner.

And the dinner itself was excellent and very well served. followed by the speakers all of whom were interesting and entertaining.

Dr. A. R. L. Dohme, of Sharp & Dohme, served most efficiently as toastmaster, introducing the speakers in a most delightful fashion.

Dr. Royal S. Copeland, U. S. Senator from New York, was most interesting and made himself at home since he said that he knew he was among friends.

Obituaries

Thomas D. Taggart

Thomas D. Taggart, ex-United States Senator and leader of the Democratic Party in Indiana for nearly four decades, dies March 6 at his home, 1331 North Delaware st., Indianapolis, at the age of 72. Survivors are the widow, the former Eva D. Bryant of Garrett, Ind., whom he married in 1877; five children and eight grandchildren.

Mr. Taggart was a well known figure in the drug trade, being the producer of the nationally advertised "Pluto Water."

Born in Waterford, Ireland, in 1856, Thomas Taggart was brought to this country as a child by his parents, who first settled in Xenia, Ohio, later moving to Garrett, Ind. The boy picked up an irregular country school education, and that ended when he had to go to work at 15.

As soon as he stepped out for himself Taggart began to play politics and he played to the manner born. In 1886 he was elected to a County Auditorship worth $50,000 a year in fees. This post he held six years. In 1888 he was made Democratic County Chairman and he soon gained a reputation as a wizard in the art of vote-getting. His ability to get votes was soon recognized and led to his apppointment as State Chairman in 1892.

Taggart had the ability to hold friends as well as make them, which was certainly demonstrated by his being elected three times to the office of mayor of Indianapolis. As a factor in the national political situation Taggart attained his greatest prominence in 1904, when, as Chairman of the Democratic National Committee, he directed the Presidential campaign of Alton B. Parker. His great ambition was to serve as United States Senator and although defeated in the campaign, he received the honor he most desired when Governor Ralston appointed him to the upper house at Washington to fill the vacancy caused by the death of Senator Shively in 1916.

During all the time that Taggart was advancing in politics he was making money, too. His hotel properties grew in size and number. His fortune has been estimated at as much as $2,000,000. His French Lick interests occasionally caused him trouble. Every now and then there would be an outcry that gambling was going on there but the state always failed in its effort to force a receivership. This situation was recalled in 1926, when Taggart threatened to sue Edna Ferber because, he contended, her book "Show Boat" contained the inference that he was at one time a professional gambler.

Leander Stockwell Jawdin

Leander Stockwell Jadwin, son of Stanley P. Jadwin, president of O. H. Jadwin Sons, Inc., wholesale and manufacturing druggists, New York, died February 10th of injuries received in an automobile accident February 7th. He was twenty-three years old and is survived by his father and mother.

Feliz A. Boericke

Dr. Feliz A. Boericke, of Boericke & Tafel, homeopathic medicine manufacturer of Philadelphia, died February 23 at his home in Bryn Athyn, Pa., at the age of seventy-two. The firm which he headed was established by his father seventy-five years ago.

John Torrey Burnett

John Torrey Burnett, president of the Joseph Burnett Co., manufacturers of flavoring extract, Boston, died February 17 at the age of 61. Mr. Burnett, after graduating from Harvard in 1890, entered the business founded by his father. He is survived by a widow, a daughter and a son.

J. Albert Owens

J. Albert Owens, vice-president of Carr, Owens & Co., wholesale druggists, Baltimore, died at his home in that city, February 23 in his sixty-seventh year. Mr. Owens was very well known in the trade and his furneral, February 25th, was attended by a delegation from the Baltimore Drug Exchange.

The sympathy of many friends was extended to Paul H. Pettit, of Lady Grey Company, who, early in February, suffered the loss of his mother. Interment took place at Brookston, Indiana, and Mr. Pettit, after returning to Chicago, left for a brief stay at Latona Beach, Florida.

Elden C. DeWitt of the Canada Dry Ginger Ale Co., and manufacturer of proprietary medicines, who died in 1927, left an estate valued at $5,000,000.

Western Company Announces Winners in Window Display Contest

The Western Co., makers of Dr. West's toothbrush and tooth paste recently split $3,500 in prizes to winners in their nation-wide window display contest.

The Grand Prize of $500 was awarded by unanimous vote of the judges to the Republic Drug Co., Denver. Other prizes ranged from $250 to $10 in accordance with the various classes entered.

Judges of the contest were: Samuel C. Henry, secretary of the N. A. R. D.; Julius Riemenschneider, Chairman of the executive committee, N. A. R. D.; J. T. McGiveran, Jr., director of advertising, Chicago Herald-and-Examiner, and M. V. Wieland, vice-president, Mitchell-Faust Advertising Co.

Chamberlain Medicine Co., Des Moines, I., has recently acquired group life insurance for its employees. According to the terms of the policy for $83,000 issued by the Prudential Insurance Co., each employee is insured in amounts ranging from $1,000 to $2,500 according to the position held.

"Thanks, Bob, but I don't need your help to open this one.* There! Easy! Wonder why more people who put up things like this don't try to make their goods easy to use? That's why I buy this kind."

*You could tell with your back turned that it was an Armstrong's Embossed-Top Cork. They can be friend-makers and friend-keepers for any bottled product. The Armstrong Cork Company, 132 Twenty-third Street, Pittsburgh, will send you prices and full details upon request « « « and of course without obligation.

Armstrong's EMBOSSED TOP Corks

Handy as a Door Knob

A. M. T. A. Convention Program

The program for the Thirty-fifth annual meeting of the American Manufacturers of Toilet Articles, Biltmore Hotel, New York, April 2, 3, 4, 1929, is as follows:

Tuesday, April 2, 1929, luncheon 12.30: Roll Call, Communications, President's Address, Reports of Officers, Reports of Committees. Address: C. H. Haeding, buyer of Toilet Article Department, R. H. Macy & Co., New York. Address: Report from Research Department by Marston T. Bogert, Professor of Organic Chemistry, Columbia University, New York. Eight-thirty p. m. Theatre Party, Broadhurst Theatre (West 44th Street). "HOLD EVERYTHING." Eleven-thirty p. m. Cascades, The Biltmore, Theatre Supper, Dancing.

Wednesday, April 3, 1929, 11.00 a. m., Executive Session: Report of Washington Representative, W. L. Crounse. Luncheon 12.30. Appointment of Tellers, Appointment of Committee on Nominations, Nominations for Officers and Executive Board, Appointment of Treasurer's Auditing Committee. Address: "The Sales Value of Style in the Package," by Miss Helen Cornelius, Harper's Bazaar. Address: By C. P. Wimmer, Professor of Pharmacy, Columbia University. Unfinished Business.

Thursday, April 4, 1929, luncheon 12.30: Report of Committee on Nominations, Report of Treasurer's Auditing Committee, Report of Committee on Resolutions, New Business, Election of Officers and Executive Board, Installation of Officers. 7.00 p. m. Reception on board SS. "PARIS", Pier 57, Hudson River (15th St.). Banquet, Dancing. Please note that the Banquet will be served promptly at 7.30.

Fritzsche Brothers Establish First American Plant in France

Fritzsche Brothers, Inc., New York, announce that after several years of preliminary work and experimentation, they have acquired their own factory in France devoted exclusively to the manufacture of natural floral products. The plant is known as Parfumeries de Seillans, Seillans (Var) France, and was founded in 1883 by Mme. La Marquise de Rostaing, Comtesse de Savigny.

Fritzsche Brothers further state that the work of producing their own floral essences was undertaken for several reasons; first, because such products are indispensable in the manufacture of good perfumes; second, the acquisition of this factory is in line with their policy of selling perfume raw materials direct to the consumer, representing the initial source of supply whenever possible; the third reason was the desire to be the first American firm to put before the American perfumer Absolute Flower Essences bearing their own name and label and which they could stand squarely back of.

Many difficulties were met with in the early stages of the development work but through the efforts of the Chief of their Research Division, who had done much work under some of the best men of Europe, experiments were carried out through several harvests over a period of four years and the results were so highly satisfactory that it was an important factor in deciding them to make their own.

The Floral Essences which they produced in 1926 were considered, by leading perfumers, fully equal to many well known brands which had been on the market for many years. This year, however, for the first time the full benefit of their Special Researches has been reaped and this year's production is superior to the finest that were made by them in 1926 and 1927.

From their early experiments it appeared as though the production of products of such high quality would necessitate much higher prices than the perfumer had been accustomed to paying. However, new methods of scientific control of their process and the utilization of improved extraction mediums have brought about better yields from the same amount of flowers and since Fritzsche Brothers, Inc., now manufacture and sell their own floral extracts, there is only one profit involved which brings the highest grade material to a selling price level which is strictly competitive.

P. C. Doyle Leaves American Metal Co.

P. C. Doyle has severed his connection with American Metal Cap. Co., recently acquired by the Anchor Cap & Closure Corp. Much of Mr. Doyle's time has been spent working on the Standardization Committee of the Glass Container Association, which committee has accomplished outstanding results in the establishment of standards on which glass containers and their closures are now bought and sold.

While Dr. Doyle's new connection has not been announced, it is rumored that he has been asked to carry on the work of standardization and simplification exclusively in connection with the association.

Paul Muller, formerly vice-president and general manager of National Seal Co., Brooklyn, N. Y., has been appointed general sales manager of Kimble Glass Co., Vineland, N. J.

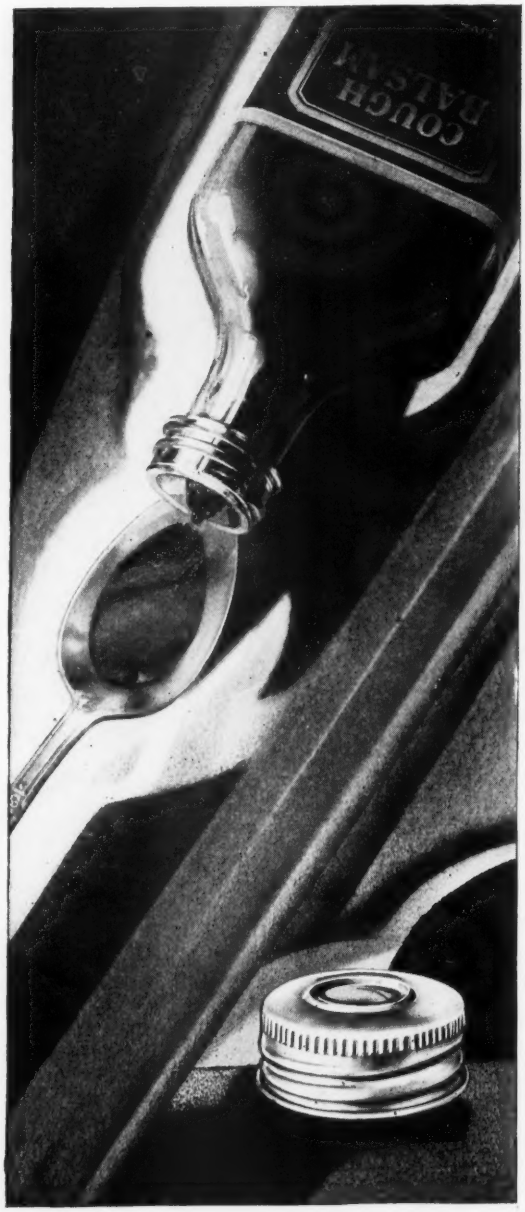
Molasses Tariff Protested by Crounse

The National Wholesale Druggists' Association and the American Manufacturers of Toilet Articles have filed a joint brief with the Ways and Means Committee opposing any increase in tariff on blackstrap (non-edible) molasses. Mr. William L. Crounse, their Washington representative, said:

"At the present time non-edible blackstrap molasses is the chief source of industrial alcohol. The quantity of such molasses produced from domestic sources is negligible. The imposition of a higher duty would be reflected to a disastrous extent in chemical industry generally. The toilet goods industry of the United States alone, with its output value at more than $200,000,000, is based on alcohol as an absolutely essential material used in the production of perfumery, toilet waters, hair and skin lotions, tooth pastes, shaving creams, liquid and transparent soaps and various other adjuvants for the health of the people. The drug industry, including manufacturers, wholesalers and retailers, in purveying to the public, to the physicians and to the hospitals, consumes very large quantities of alcohol, in accordance with standards fixed by the Federal Government, there being absolutely no substitute. Throughout the entire field of the production of chemicals alcohol is universally recognized as the most important and widely used raw material. A vast amount of research has been devoted to reducing the amount of alcohol present in the products of these important branches of industry, but the irreducible minimum has been reached and any increase in the cost of this essential material will be nothing less than a calamity, both to manufacturer and consumer. A higher duty would impose a heavy burden upon the entire population of the country and would be of no substantial aid to the agricultural interests in whose behalf it is urged."

F. T. Foster, who for a number of years has been connected with the Palmolive-Peet Co., has been appointed manager of the Richmond branch of the consolidated Colgate-Palmolive-Peet Co. and will have charge of that district, which includes the States of Virginia and North Carolina. His office will be located at 15 North Seventh st.

One TEASPOONFUL *after each meal . . .*



IT takes a good many seal removals and replacements to empty most medicine bottles—even at the rate of a teaspoonful after each meal.

—And it takes a good seal to keep the contents pure and at full strength in the meantime.

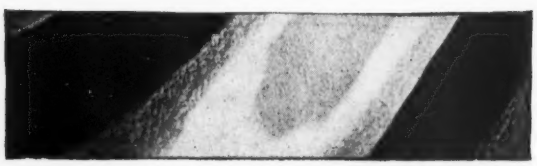
R-O Aluminum Seals will protect your product perfectly until the last drop is used.

R-O Seals make an initial hermetic seal. They always make an excellent re-seal.

They are convenient, too. A slight twist of the fingers removes them and they are replaced with a reverse twist.

R-O Seals are made of non-rusting, non-contaminating Alcoa Aluminum. They are applied by a unique method that probably will reduce your packing expense.

Write today for complete information. Aluminum Company of America, 2459 Oliver Building, Pittsburgh, Pa. Offices in 18 principal American cities.



ROLLED RO
ALUMINUM SEALS

P. C. Magnus Heads Drug and Chemical Club

At the meeting of the Drug and Chemical Club, February 21, the following officers were elected: Percy C. Magnus, of Magnus, Mabee & Reynard, Inc., president; John S. Turn, of the Aetna Life Insurance Co., vice-president; F. H. Leonhardt, of Fritzsche Brothers, Inc., Treasurer; Col. Frederic E. Humphreys, of the Humphreys' Homeopathic Medicine Co., Secretary.

The newly elected members of the board are Robert C. Cox, Charles J. A. Fitzsimmons, and Alva R. Hanners.

Percy C. Magnus, the new president of the Drug and Chemical Club, was born October 22, 1893. He received his education in the New York public schools and began his business career with the Metropolitan Trust Co. Later, at the request of his father he entered the essential oil business. Mr. Magnus became an officer of the company in 1916 and on the death of his father in that year he took over the active management of the business. He was elected president of Magnus, Mabee & Reynard, Inc. in 1917.

Mr. Magnus is also affiliated with the following clubs: Montauk Club of Brooklyn, Riding and Driving Club, Crescent Athletic Club, and New York Club. He is a trustee of the East River Savings Institution and a member of the New York Board of Trade and Transportation. He is active in Freemasonry and a member of the Protestant-Episcopal Church.

Chicago Association More Active

The Chicago Perfumery, Soap and Extract Association has shown a remarkable gain, during the last two months, in the numerical attendance at the regular semi-monthly meetings. Continuing its newly established policy of providing frequent entertainment features, the committee, headed energetically by Harold E. Lancaster, secured the services of Mr. Oscar Helstrom, celebrated as "Europe's Greatest Mental Telepathist" for the meeting of March 6th. Mr. Helstrom upheld his reputation easily, as far as those present were concerned, and by his uncanny insight even caused some misgiving among his listeners as to the advisability of thinking carelessly in public. Mr. Lancaster promises the announcement, in time for the next issue, of the date of the Annual Spring Dinner Dance, or Frolic, as it is sometimes not inappropriately termed. Several novel features are in prospect for this year's party.

Armstrong Cork Co. announces consolidation of offices of all its divisions at Lancaster, Pa., effective April 1, 1929. This involves removal from Pittsburgh of general office of the company and all executive offices of the Armstrong Cork Co., Cork Division, and of the Armstrong Cork & Insulation Co., with the exception of the Purchasing Department, which will remain in Pittsburgh. All communications hereafter should be directed to the new address.

"How to Pack It" is the title of a loose-leaf book issued by Hinde & Dauch describing the proper use of corrugated cartons, and giving half-tone illustrations of products as they are packed in these cartons. Fillers for the book tell how products should be packed in seven different industries, among which is the Drug, Chemical, Cosmetic and Proprietary Industries.

{ *Drug Industry Personalities* }

Michael T. Burke has been added to the personnel of the Chicago office of Norda Essential Oil & Chemical Co.

Pfaltz & Bauer, Inc. announce the recent appointment of Fred J. Mingst to the office of Assistant Treasurer.

Dr. H. Flamhaft, of United Laboratories, lately made his headquarters, during a Chicago visit, at the office of Joseph De Lorme, of Riviera Products Co.

Charles Shapiro, of Superior Perfume Co., Chicago, accompanied by his brother Morris, left on March second for his annual vacation in Florida.

Mr. Dent, of Dent Chemical Co., Grand Rapids, Mich., who sold his business two years ago, has now bought it back and, with renewed energy, is instituting many attractive innovations.

William H. Quade, formerly with Meyer Bros. and William P. Kahn, has now become associated with the Dealer Sales Corporation, of St. Louis. The Dealer Sales Corp. was formerly known as Koken Co.

C. I. Togstad, of C. I. Togstad Co., Kokomo, Ind., returned to his desk during February after spending a vacation in the South, during which he visited Havanna, Key West and other places.

A. F. Loertz, of the H. C. Whitmer Co., Columbus, Ind., whose recent severe illness was treated at the Mayo Brothers Clinic, has now returned and is resting in a much improved condition.

Frederick J. Lueders returned recently from his trip to the East. Mr. Lueders now heads the Chicago office of George Lueders & Co., capably supported by Walter S. Goff and Frank V. Varallo.

Harold I. Koppelman, president and general manager of U. S. Sanitary Specialties Corp., who left for Europe on February sixteenth, arrived in Paris on March first. It is expected that Mr. Koppelman will remain abroad for about two months.

Walter H. Jelly, of Walter H. Jelly & Co., journeyed by airplane to Minneapolis February 14th, made numerous calls on the trade, returned to Chicago by the same conveyance, and arrived at his office in time to send out the orders he had received on the evening of the same day.

Senator Eugene Charabot, French news despatches announce, has been appointed a member of the Commission on Foreign Affairs of the French Senate. Senator Charabot is better known in the United States as head of Charabot & Co. (Hugues Aine), represented here by Ungerer & Co., New York.

William L. Brower, senior vice-president of Schieffelin & Co., wholesale druggists, New York, was presented, on February 16, with a silver cup in commemoration of his more than sixty-six years of service with the firm. Mr. Henry S. Livingston, vice-president and secretary of Schieffelin & Co. gave a brief sketch of Mr. Brower as he knew him. He spoke of Mr. Brower's high character and sympathetic attitude toward the employee.

Louis D. Etman, of J. T. Baker Chemical Co., Phillipsburg, N. J., has been named New York manager of the Company, effective March 1. Mr. Etman, who joined the Baker Company last year following his resignation as assistant sales manager of Powers-Weightman-Rosengarten Co., succeeds Donald H. Coale in this position. Mr. Coale, who has been New York manager of the Company for two years, has been named assistant sales manager with headquarters at Phillipsburg.

The Greedy Hand ..of Waste

THE *one factor that is of the utmost importance to all* manufacturers of drugs and chemicals who market any *bulk material in bags, sacks, cartons, packages or bottles is* . . . accurate weight.

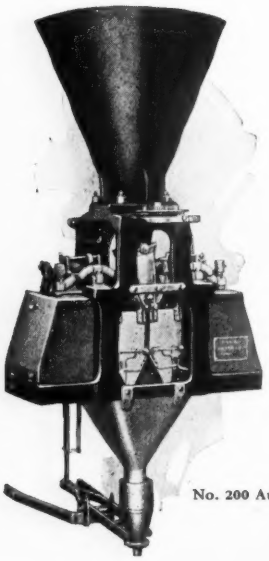
A scale that is not accurate is, in the long run, a greedy hand of waste.

The manufacturer using such a scale must put in a little overweight in almost every package to guard against giving illegal short-weight. But this little overweight, while hardly worth considering per package, may make all the difference between profit and loss when multiplied by a single year's output.

AMF Automatic Packaging Scales are designed to eliminate all uncertainty as to short weight as well as to speed up packaging production. The No. 200 Net Weigher illustrated, for instance, has a double scale which apportions out the material to balanced weights, each scale working individually and in succession.

The result is, packages filled speedily yet to exact measure; thus eliminating waste, both of material and labor. A descriptive bulletin will be sent on request.

AUTOMATIC WEIGHING MACHINE DIVISION,
AMERICAN MACHINE & FOUNDRY CO.
5502-5524 Second Ave. - Brooklyn, N. Y.



No. 200 Automatic Net Weigher

Honor Dr. Herbert H. Dow

Dr. Herbert H. Dow, founder and president of the Dow Chemical Co., Midland, Mich., was the guest of honor at the annual dinner of the Chemists' Club, February 27th, at the home of the club in New York. Dr. Theodore B. Wagner, president of the club, was master of ceremonies and the dinner was attended by two hundred representative members of the scientific and industrial divisions of chemistry in the United States.

The toasts in honor of Dr. Dow were offered by Dr. Charles L. Reese, chemical counselor to E. I. Du Pont De Nemours & Co.; Edwin M. Allen, president of the Mathieson Alkali Works; James T. Pardee, vice-president and secretary of the Dow Chemical Co. Others, special guests, at the president's table were Frederick M. Becket, vice-president of the Union Carbide & Carbon Co., and William B. Bell, president of the American Cyanamid Co.

"Herbert H. Dow, Chemist and Chemical Engineer," was the subject of the talk by Dr. Charles L. Reese. He recited the many contributions which Dr. Dow has made to the chemical industry, namely the Dow patent for the separation of bromide from mixed brines without preliminary concentration by evaporation, and the first production of potassium bromide, (the potash being obtained from wood ashes). Other contributions mentioned was the preparation of chlorine and carbon tetrachloride and the pioneering in organic chemistry in the production of chloroform; the development of the Dow electrolytic cell; the production of calcium chloride, magnesium sulphate; the development of ethylene compounds, of phenol and of tear gas. For these achievements, said Dr. Reese, Dr. Dow merited fully to be ranked high as a chemist and chemical engineer.

Edwin M. Allen, who spoke on "Herbert H. Dow, Industralist," gave an interesting account of the establishment of the Dow Chemical Co., first as a chemical manufacturer, under the name of the Canton Chemical Co. in Ohio, then as the Dow Process Co. at Navarre, O., and finally the move to Midland, Mich., where the venture took the name of the Midland Chemical Co., out of which grew the Dow Chemical Co.

Herbert H. Dow was born in Belleville, Ont., February 26, 1866. His boyhood was spent in Conn. He specialized in chemistry at the Case School of Applied Science, Cleveland, being graduated in 1888, with the degree of bachelor of science. For two years immediately after his graduation he was professor of chemistry and toxicology at the Huron Street Hospital College, Cleveland. In 1925, his alma mater conferred on him the honorary degree of doctor of science in recognition of his achievements in practical chemistry.

During the World War, Dr. Dow was a member of the advisory committee of the Council of National Defense, as well as the Chemical Alliance, Inc., He is a member of the Corporation of Case Science and the American Association for the Advancement of Science, a life member of the American Chemical Society, a member of the American Electrochemical Society, the American Institute of Chemical Engineers, the Franklin Institute, and the Society of Chemical Industry.

Alsop Engineering Co. announces a new six page folder showing installation of glass-lined tanks, filters and mixers, in prominent plants. The folder also shows a complete line of portable electric mixers, and a new glass lined electric mixing tank.

Armand Heard on Citation

A hearing in the citation by the Federal Trade Commission of the Armand Co., toiletries, Des Moines, for illegal acts in the maintenance of resale prices was held in the Federal building recently and later continued to June 30.

J. Bacon & Sons, proprietor of a local department store, testified through their department manager, Sam L. White, to buying Armand products in 1920 and offering a $ article at a sale for 88 cents. Mr. White stated that Armand Co. protested against this cut price in writing. Later, he restocked the article and agreed with the salesman that the price should not be cut. He could not identify the salesman with whom the transaction took place and Charles Wesley Dunn, attorney for Armand, protested that he could not refute the testimony unless the salesman was produced. He also stated that salesmen had no authority to make such agreements as it was not the policy of the company to establish resale prices.

Garvan Chair to Function Soon

Johns Hopkins University, Baltimore, are rapidly completing plans for the functioning of the new chair of chemical education for which provision has been made by Francis P. Garvan. At the opening of the session next Fall this chair will be filled by Dr. Neil E. Gordon, professor of chemistry at the University of Maryland, and editor of the "Journal of Chemical Education."

The University is making a special effort to get fellowships in chemical education in every state of the union with the purpose of getting particularly fitted students for the course. Fellowships already provided for include:—

Indiana, Eli Lilly & Co., Indianapolis.
New Jersey, the J. T. Baker Chemical Co., Phillipsburg.
Ohio, the Firestone Tire & Rubber Co., Akron.
Maryland, Dr. H. A. B. Dunning, of Hynson, Westcott & Dunning, Baltimore.
Delaware, the Bill Raskob Foundation, Wilmington.
Wisconsin, the Kewaunee Manufacturing Co., Kewaunee.
Maine, the Brown Co., Portland.
New Hampshire, the Brown Co., Berlin.
New York, Francis P. Garvan, New York.

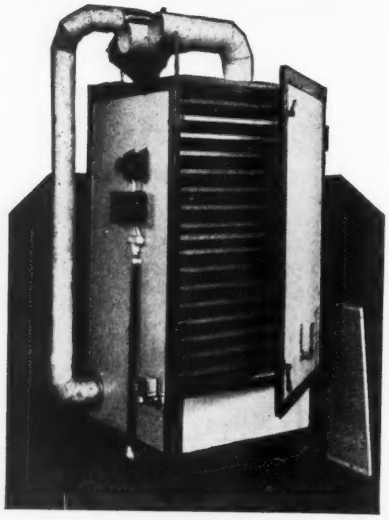
Fritzsche Holds Annual Dance

Fritzsche Brothers, Inc., gave their annual dance on Saturday evening, February 9th, at the Hotel Pennyslvania, New York. The entire official personnel, together with all the employees and their wives and escorts were in attendance to the number of more than two hundred. An excellent dinner was followed by an evening of dancing and handsome prizes were awarded to the successful ones in two elimination dance contests.

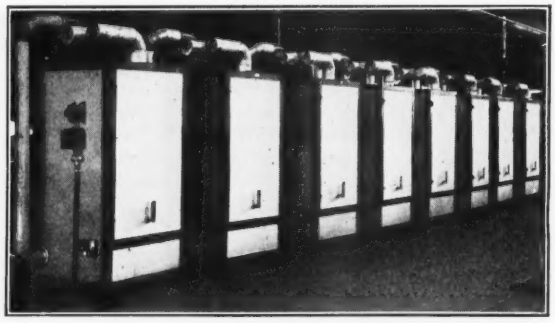
An unusual feature was the first public showing of a moving picture film depicting everyone in the local organization, each busy at his daily tasks.

The attendance of the President, Mr. F. E. Watermeyer, was prevented by the unfortunate illness of Mrs. Watermeyer, thus marring an otherwise perfect evening. In the absence of Mr. Watermeyer, Mr. F. H. Leonhardt, Vice-President, acted as master of ceremonies and thereby insured the success of the party.

Chicago Drug and Chemical Association held its February luncheon meeting on Thursday, the twenty-eighth. The members followed with close attention an edifying lecture by Mr. Wood of the Plumbing and Heating Industries Bureau. Mr. Wood soon dispelled the fears, felt by some in advance, that his subject, "Sanitation and Civilization," might contain elements of dullness. The annual Spring Party and election of officers of this association is announced by William B. Erb, Secretary, as scheduled for March 28th. Plans are now being formulated to make it a stimulating affair.



Now is the time
to investigate the efficiency and economy of STOKES Drying Closets



Drying Closets on shop assembly floor

PHARMACEUTICAL MACHINERY SINCE 1895

Tablet Making Machines	Conveyors
Drying Closets	Vacuum Pans and Dryers
Drug Mills and Mixers	Alcohol Recovery Apparatus
Jacketed Kettles	Water Stills
Molds of all types	Tube and Jar Fillers
Bottle Washers	Powder Fillers
Percolators	Special Machinery

Write for information

See our exhibit at the Twelfth Exposition of Chemical Industries, Grand Central Palace, New York, Booth 77, May 6-11, 1929

Efficient

Air recirculated at high speed
Heat uniformly distributed
Automatic temperature control
Removable shelves (*or baskets*)
Self-contained units

Economical

Highly insulated
Efficiently heated
Compactly built
(*require 3 x 4 ft. floor space*)
Save on insurance
(*built to Underwriter's requirements*)

Write us about your drying problem. Our experience and laboratory facilities are at your service.

FJS STOKES MACHINE COMPANY

5832 TABOR ROAD OLNEY, P. O. PHILADELPHIA, PA.

Wholesalers Merge Their Buying

Ninety-six of the leading independent wholesale druggists of the country are to buy co-operatively. The buying will be done through the Druggists Supply Corporation, 177 William st., New York. This was decided at the recent convention of the D. S. C. held in New York. It was decided at this convention to extend the activities of the D. S. C. to chemicals, heretofore only sundries were purchased.

"More intensive co-operation with the members in distribution" is also contemplated by the Corporation in a statement issued as follows:

"The stockholders' meeting on February 13th voted unanimously that a regular committee be created to study and develop plans for extending the scope of the D. S. C. and to develop more intensive co-operation with manufacturers in distribution. The Directors after careful consideration created a permanent committee to be known as the Operating Committee, composed of the following men:

William S. Ochse, chairman, C. Mahlon Kline, H. J. Frank, Henry I. Fox, Barrett Moxley, Wm. Jay Schieffelin, Jr., Theo. H. Lyons, A. J. Geer and Walter M. Brunswig.

"This Committee has had three important meetings. It has developed a policy which will put into effect the mandate of the Convention that the D. S. C. should function as far as possible as a unit to buy and sell merchandise and thus secure the advantages and economies of a chain organization without the sacrifice of independence in control.

"The plans involve the zoning of our entire country, engaging a well qualified sales expert to attend periodic zone meetings, contact with manufacturers of proprietaries to develop the jobbers service in return for recognition of the D. S. C. as a distributor to wholesalers. Further, an arrangement has been made whereby the D. S. C. members can secure the advantage of large quantity purchases of drugs, heavy chemicals and allied products."

"The Druggists' Supply Corp. is in communication with 475 of the largest manufacturers of proprietary preparations, offering them the service of the 96 houses represented in the D. S. C. covering the entire country insofar as possible unitedly co-operating with manufacturers in improving sales methods both to retailers and consumers and thus to render the fullest service to manufacturers.

"The Druggists' Supply Corp. is also sending out Data Sheets to all of its members to gather the figures of their needs in purchasing drugs and chemicals, so that the D. S. C. may take advantage of their large buying capacity. Mr. Charles L. Huisking will have charge of this buying.

"The call for the meeting of the Executives of the Druggists' Supply Corp. houses in St. Louis, April 22nd to 24th, has only been out for a week. Already sufficient replies have been received to make certain that there will be a full attendance and an earnest purpose to make the new plans of the D. S. C. successful.

"It is evident that the members of the Druggists' Supply Corp intend to pursue the policy of loyal co-operation."

A. K. Hamilton, 95 Wall st., New York, representing the Pennsylvania Sugar Co., Alcohol Division, and The Franco-American Chemical Works, Inc., has just appointed the following companies as sales agents: Pearling-Scott Brokerage Co., 306 Palladio Building, Duluth, Minn., and B. H. Roettker Co., 1613 Union Central Building, Cincinnati, Ohio.

These companies will handle the sales of Quaker Brand Alcohol and the industrial and pharmaceutical chemicals made by The Franco-American Chemical Works, Inc. in their respective territories.

Plough Chemical Co., Memphis, report total assets at the close of 1928 of $6,461,229.54, this represents an increase over 1927 of $1,079,696.51. Earnings for 1928 were the largest in the history of the business.

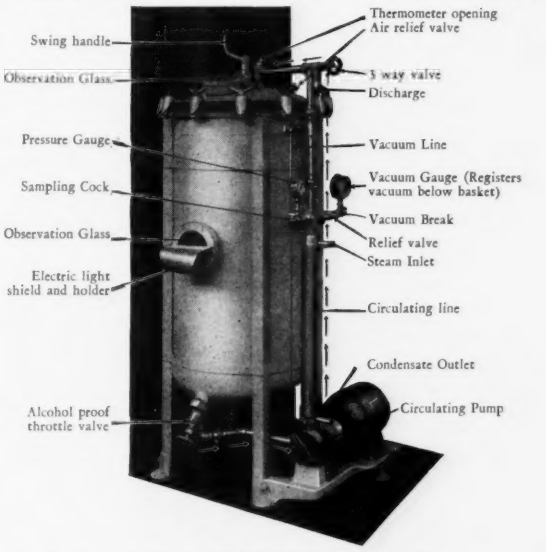
{ *New Equipment* }

Pfaudler's New Percolator

At 12.55 Eastern Standard Time on March 12, over 4,000 air mail letters announcing the new Pfaudler Glass-Lined Pre-Vak Percolator departed from the municipal airport, Rochester, N. Y., on several U. S. mail planes bound for points east, south, west, and north.

Conceding this to be the most outstanding machine ever offered to the extract industries, the Pfaulder Co. used Uncle Sam's fastest mail service to spread the news. Incidentally, the company is one of the first in the nation to use air mail on such a large schedule.

The Pre-Vak Jr. Percolator is the outgrowth of the old Pre-Vak introduced about two years ago. Its operation embodies



Consecutive arrows indicate direction of percolate flow

the pressure vacuum principle used so successfully on the original machine, but due to certain mechanical revisions is now offered for less than 50% of its former price.

The efficiency of the Pre-Vak is summed up in what Mr. Flett of the American Products Co., Cincinnati, Ohio, says of the machine: "I believe your Pre-Vak Percolator is at least 25 times more efficient than the old methods since we now accomplish extraction in 24 hours whereas it formerly required a month. We use the machine for a wide variety of extractions and at varying temperatures."

The Pre-Vak Jr., one of the new machines, which will be on exhibit at the forthcoming Chemical Exposition, is suitable not only for flavoring extracts but also for the percolation of medicinal, products. A complete description is included in Bulletin No. 704, available on request.

The "Interchangeable" Series of highly acid-resisting, glass-lined steel chemical reaction kettles, introduced for the first time at the previous exposition, has had wide application in practically every branch of the chemical industry and in some branches of the food industry.

Several models in this series will be displayed, including two experimental laboratory stills, two and five gallons capacity respectively, completely equipped; a 75-gallon Model 1008 open Type "S" Reaction Kettle; a 300-gallon type "L" Model 1040 Reaction Kettle of jacketed closed construction with overhead pulley drive.

Supplementing the exhibit will be several new glass-lined fittings to be used in connection with the above equipment.

The following officers and sales representatives will be in attendance: W. D. Pheteplaee, R. B. Kilmer, H. S. Calvert, G. F. Kroha, P. A. Laird, P. S. Barnes, S. A. Smith, W. E. Gray, Jr., G. E. Matter, M. J. Goodwin, R. B. Hand, and H. J. Grieve.

If you wrap advertising matter around bottles and put them in cartons---

If you polish jars or bottles; label by hand---

If you package pills, powders, or similar products---

---Then give the girls doing this the opportunity to work with greatest facility.

Belt Conveyors provide an orderly arrangement of the work to be done, keep the girls supplied with work and take it out of their way. Belt Conveyors keep production moving, eliminate unnecessary work, lower production costs.

Write for our new catalog giving full information and illustrations of plant installations.

The Karl Kiefer Machine Co.
CINCINNATI, OHIO

Patented
Nov. 27, 1928

Hy-Speed

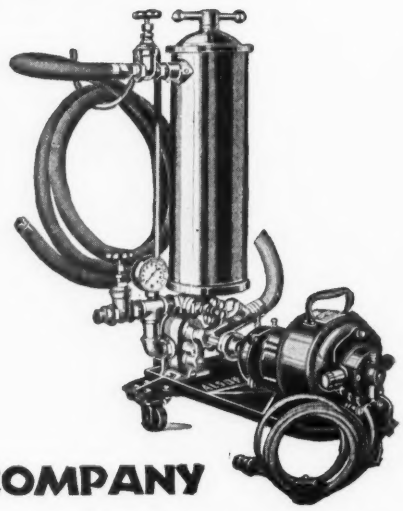
ELECTRIC MIXING TANKS AND FILTERS

Are used everywhere because they combine extreme economy with real operating efficiency. The Glass-Lined Mixing Tank illustrated is in great demand because... the motor is above the liquid... the top and bottom of the tank are mixed simultaneously... there is no stuffing-box to leak or obstruct cleaning... it is lined inside and coated outside with acid-resisting glass,.. and the low price makes it a real bargain in any capacity from 5 to 150 gallons.

INTERNAL PRESSURE FILTER

The new *"Hy-Speed"* Filter produces a crystal-clear product free from dirt with a minimum of trouble. Can be cleaned in two minutes. *Filtered* liquids can be pumped to any part of plant in same operation. Operates from light circuit.

Write for Catalogue of "Hy-Speed" Electric Mixers, Filters, Bottle Fillers, Pumps, and Glass-Lined Mixing and Storage Tanks.



ALSOP ENGINEERING COMPANY

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The Financial Markets

Bristol-Myers Gains 50%

Bristol-Myers Co., reports for 1928 net income of $1,609,191 after taxes and other charges, equal to $7.95 a share on the 202,210 shares of common stock outstanding at the end of the year. Net earnings of the company, including the earnings of the F. F. Ingram Co., from Sept. 28, the date of acquisition, amounted to $1,483,159. This compares with net earnings of $1,047,688 in 1927 for the Bristol-Myers Co. after taxes and after eliminating income from investments withdrawn from the business in 1928.

The Company has declared a regular quarterly dividend of $1.00 a share and an extra dividend of 25 cents a share, both payable March 30 to stockholders of record March 20. The company was recapitalized last May, the new stock being brought out at $59 a share.

Walgreen Gains Over 100%

Walgreen Co., reports, for year ended December 31, 1928, net profit of $2,752,424, after charges and federal taxes, equivalent, after dividend requirements on 6½% preferred stock, to $3.21 a share earned on 766,354 no-par shares of common stock. This compares with net profit in 1927 of $1,501,252, or $1.57 a share on the common, figured on above share basis. For quarter ended December 31, 1928, net profit, including $190,000 earnings taken in final quarter but applicable to the year as a whole amounted to $870,104, equal to $1.04 a share on common, comparing with $837,346, or 97 cents a share, in previous year.

Sales of Walgreen Co. for quarter and year ended December 31, 1928 new stores included, compare as follows:

	1928	*1927*	*Changes*	*%*
Dec. 31, quar. .	$9,991,314	$5,978,971	Inc. $4,012,343	67.1
12 months.....	31,389,313	20,889,819	Inc. 10,499,494	50.2

Stein Cosmetics Financing

Stein Cosmetics Co., Inc. has been organized under the laws of Delaware to acquire the Capital Stock and assets of The M. Stein Cosmetic Co., and its subsidiary, Grotta Realty Corp.; also Alexander Laboratory, Inc., and its subsidiary, Synthesa Laboratories, Inc.

Capitalization will consist of 25,000 shares of convertible preference stock (without par value); presently to be outstanding 22,500 shares, and 150,000 shares of common stock (without par value), presently to be outstanding 60,000 shares.

The Stein Cosmetic business was founded about forty years ago and has been a dominant factor in the theatrical branch of the cosmetic industry. Alexander Laboratory, Inc., and its subsidiary, Snythesa Laboratories, Inc., control valuable formulae for compositions and synthetic materials used in the manufacture of perfumes and other toilet preparations and conduct a manufacturing and jobbing business in these products.

The plans of the new Corporation contemplate the acquisition, from time to time, of other successful and established companies engaged in similar lines. The affairs of the Company will continue under the management of those who have been responsible for the success of the predecessor companies.

Druggist Buying Corporation of New York, wholesale drugs, 52 Sands st., Brooklyn, filed petition in bankruptcy. The liabilities are about $20,000 and assets $10,000. Judge Inch has appointed Louis J. Castellano receiver in bond of $5,000.

Lehn & Fink Gains Slightly

Report of Lehn & Fink Products Co. and subsidiaries for year ended December 31, 1928, shows net profit of $1,906,269 after depreciation, federal taxes, etc., equivalent to $4.59 a share earned on 415,000 shares of no-par common stock. The management stock previously outstanding has been converted into common shares. This compares with $1,277,142 or $4.32 a share on 285,000 shares in 1927, after allowing for dividend requirements on management stock.

Consolidated income account for year 1928 compares as follows:

	1928	*1927*	*1926*
Profit after expense	$2,166,000	$1,476,465	$1,665,441
Federal taxes	259,731	199,323	224,835
Net profit	$1,906,269	$1,277,142	$1,440,606
Com. dividends	967,500	825,000	795,000
Management dividends	33,750	45,000	56,250
Lysol, Inc., min int.	1,531	2,104	.....
Surplus	$903 488	$405,038	$589,356

Consolidated balance sheet of Lehn & Fink Products Co. and subsidiaries as of December 31, 1928, compares as follows:

Assets

	1928	*1927*	*1926*	*1925*
*Land, bldgs. & eq.	$1,707,981	$1 276,135	$1,144,937	$1,176,484
Trademarks etc.	7,653,171	7 653 171	6,214,421	6,214,421
Investments	334,084	277,439	305,936	214,362
Cap. stk. Prod real corp	1	1	1	1
Cash	126 644	297,665	231,436	512,127
U. S. bonds, etc.	.....	.....	.....	193,599
Accts. rec.	627,167	484,521	345,007	274,487
Sundry debt	20,032	44,383	42,883	29,114
Inventories	722,102	668,852	498,938	584,866
Deft. charges	100,471	102,829	80,865	49,292
Total	$11 291 653	$10,804,996	$8,864,424	$9,250,753

Liabilities

Cap stk. & surp †	$10,521,245	$9,271,506	$8,383,968	$7 796,775
Min. int. Lysol. Inc	18,317	29,688	27,690	26,047
Accts. Pay. & Accruals	459,353	309,049	249,493	170 717
Gold notes	.....	875,000	.....	.....
Reserves	292,738	319,753	203,273	1,257,214
Total	$11,291,653	$10,804,996	$8,864,424	$9,250,753

*Less depreciation and mortgages. †Represented by 415,000 no-par shares of common stock.

Coty Gains 21.3%

Coty, Inc., reports net income to surplus of $4,053,019 for 1928. This compares with $3,341,189 in the preceding year or an increase of 21.3 per cent. Earnings per share on the 1,311,048 shares of no par common stock outstanding were $3.09 in 1928, as compared with $2.54 in 1927, computed on the basis of the same number of shares, or $10.80 a share on 309,300 shares then outstanding. The balance sheet of the company as of December 31 shows total assets of $10,107,331 and net tangible assets of $7,938,370. Current assets of $8,199,272 were more than five times current liabilities of $1,571,664.

Owl Drug Co. Gains 25%

The Owl Drug Co. of San Francisco reports for 1928 a net income of $731,615 after all charges and Federal taxes, equivalent, after preferred dividends, to $5.85 a share earned on 40,000 common shares. This compares with a net profit of $666,341, or $4.66 a common share, in 1927.

Chesebrough Mfg. Co. declared extra dividend of 50 cents and the regular quarterly dividend of $1, both pyable March 30 to stock of record March 9.

IPANA cuts packing costs 46%

The first bundling machine used by Bristol-Myers to wrap Ipana Tooth Paste made a reduction of 46% in packing costs. As a result of this impressive saving they immediately ordered three more machines.

Equally remarkable savings are being made by such concerns as Norwich Pharmacal Co., Forhan Co., American Tobacco Co., Royal Baking Powder Co., etc.

Machine bundling is especially suitable for tooth paste, shaving cream, toilet goods, etc.

Get in touch with our nearest office and find out how much this modern method of packing will save you.

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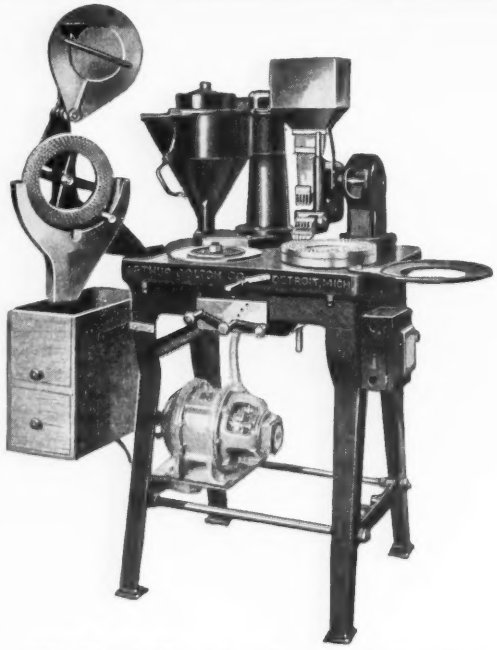
SPRINGFIELD, MASSACHUSETTS
New York: 30 Church St. Chicago: 111 W. Washington St.

PACKAGE MACHINERY COMPANY

Over 150 Million Packages per day are wrapped on our Machines



This Capsule Filler is leased at a very low rental to users of Colton capsules. It is extremely simple to operate, fills with greater accuracy than other methods and is the fastest capsule filler made.

Those who have not sufficient production to warrant the use of these machines may send their material to to us for filling.

One girl can fill 75,000 to 100,000 Capsules each day with this CAPSULE FILLER!

If you fill empty Gelatine Capsules, you need Colton Capsules, and a Colton Capsule Filler, to meet your competitors' prices and to put a greater part of your price back in your own pocket.

Arthur Colton Company

2620 East Jefferson Avenue
DETROIT, MICHIGAN

Drug, Inc., Earns $5.50 a Share

Drug, Inc., and subsidiaries for 11 months ended December 31, 1928, shows net income of $12,014,335 after depreciation, interest, federal taxes, etc., equal to $5.50 a share on 2,183,990 no-par shares of stock. Consolidated income account for eleven months ended December 31, 1928, follows: Gross profit $45,710,073; expenses $31,109,052; operating profit $45,710,073; expenses $31,109,052; operating profit $14,601,021; other income $2,280,712; total income $16,771,735; depreciation $1,347,297; interest $2,112,418; federal tax $1,399,932; dividends on stocks of subsidiary companies outstanding $7,751; net income $12,014,335 Consolidated balance sheet of Drug Incorporated and subsidiaries as of December 31, 1928, follows: Land, buildings, leaseholds, etc. less reserves, $24,459,154; cash $13,434,364; accounts, notes, etc., receivable $7,860,197; inventories $23,568,285; investments $40,828,550; trade marks, goodwill, etc., $32,147,011; advances and deferred items $2,700,842; total $144,998,403.

Liabilities: Capital stock and surplus (represented by 2,183,990 no-par shares) $75,177,768; accounts and notes payable $8,847,372; dividends payable $3,769; bonds and mortgages $45,910,193; federal tax reserve $1,399,932; contingent and other reserves $8,037,570; earned surplus (including capital stock and minority interest of Sterling Remedy Co., $129,232) $5,621,799; total $144,998,403.

Harshaw Chemical Company

Harshaw, Fuller & Goodwin Co., Cleveland, at a recent meeting of stockholders, voted to change the name of the corporation to the Harshaw Chemical Co., with W. A. Harshaw has been elected president. Mr. Harshaw was formerly chairman of the board of the Harshaw, Fuller & Goodwin Co. and had been its president from 1898 to 1924.

Outstanding preferred stock of $1,000,000 is to remain unchanged. The par stock at $100 is changed to one without par value. An issue of 200,000 shares of the new stock was authorized, of which 100,000 shares are to be exchanged for the former common stock, and the remaining 100,000 shares are to be marketed as the business may require. An issue of 10,000 shares is now being placed.

Pennsylvania Sugar Company Expands

The Pennsylvania Sugar Co. has acquired a substantial interest in the Franco-American Chemical Works, Inc., Carlstadt, N. J. Sugar, molasses and alcohol are produced by the Pennsylvania Sugar Co. at Philadelphia and the alcohol is used by the Franco-American Chemical Works in the production of industrial and pharmaceutical chemicals.

M. Trubek will continue as vice-president, in charge of production and research of the Franco-American Chemical Works, Inc., the organization as now existing being held intact. W. H. Hoodless, of Pennsylvania Sugar Co. will be president. The sales and distribution of the products will be handled by the sales representatives of the alcohol division of Pennsylvania Sugar.

McKesson & Robbins, Inc., report net sales for 1928 as approximately $80,000,000, compared with $74,950,250 for 1927. The company represents a merger of sixteen wholesale drug houses.

J. T. Baker Chemical Co. are issuing through Bristol & Willett 10,000 shares of common stock priced at $12.50 per share.

Felton Chemical Co., Brooklyn, increased their capitalization from $100,000 to $200,000.

Lambert Stock on $8 Basis

Lambert Co. declared a quarterly dividend of $2.00 on the common, placing the stock on $8.00 annual basis, against previous quarterly dividends of $1.25 regular and 50 cents extra. The dividend is payable April 1 to stock of record March 18.

Directors voted to increase the amount of authorized stock to 2,500,000 shares, from 1,000,000 shares, subject to approval of stockholders at annual meeting April 15.

American Commercial Alcohol Absorbs Industrial Solvents Corporation

American Commercial Alcohol Corp. of Cal., newly formed and wholly owned subsidiary of American Commercial Alcohol Corp., has arranged to acquire all the assets of the Industrial Solvents Corp. of Sausalito, Cal. No new financing is involved.

With this acquisition, American Commercial Alcohol becomes second in size among the country's industrial alcohol distillers. Industrial Solvents Corp. has an allotment for 1929 of 1,650,000 gallons.

Acquisition of Industrial Solvents gives American Commercial Alcohol a nationwide distribution with plants located at Phila., Pekin, Ill., New Orleans, and the new acquisition just outside San Francisco on San Francisco Bay.

Walter E. Buck, president of Industrial Solvents, will continue in charge, and will become vice-president of American Commercial Alcohol.

Lane Chain to Add Thirty Stores

The Lane chain of drug stores in the Southeast is preparing to establish in the near future thirty new units in Georgia, twenty in northern Florida; to acquire forty-five additional units in western North Carolina and eastern Tennessee, and to open fifty-five new units in this latter territory.

The reports concerning the enlargement of the Lane chain were to the effect that the stores to be acquired in western North Carolina and Tennessee have long been under individual operation and have an annual gross business in the neighborhood of $2,000,000. The fifty-five new units in the same territory will be established during the course of the next year, it was reported.

Whelan Drug Purchases Chain

The Whelan Drug Co. has purchased the retail drug store chain of T. P. Taylor & Co., of Louisville. Eleven stores are represented in this chain and the price paid is said to exceed $1,000,000.

Liggett in Milwaukee

Liggett Co. signs long term lease in the Straus Building, Wisconsin Avenue and Third st., Milwaukee, Wis. The lease involves $1,000,000 over a 20 year period and is for the entire ground floor and basement, 5,225 square feet and 6,325 square feet respectively. This lease is the first to be closed for a chain of 16 Liggett stores to be established in Milwaukee and suburbs. The first new store will be ready about July 1.

The Whelan Drug Co., has leased for nineteen years, the large store in the new Broadway Block Building at Broadway and 51st. Gross rental is $1,425,000, or approximately $3.00 a front foot annually and will locate one of their finest branch stores at this corner.

Schimmel & Co., Ltd., Miltitz, Germany, (Fritzsche Brothers, Inc., American agents for 60 years) have purchased Anton Deppe Sohne, Hamburg, Germany, which company will be operated as a branch of Schimmel & Co.

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Clamp on any Tank or other Mixing Container

Will thoroughly and uniformly MIX any and all *Fluid Products* Better--Quicker Cheaper.

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All sizes and speeds.

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What ample production facilities can mean to you!

A rush job for a new tube, or a tube that is being modernized and improved in appearance and sales creating value.

Advice and suggestions to this end which can immediately be put into operation.

All this without in any way interrupting our prompt service to our regular customers.

AS GOOD AS A BOND

BOND MANUFACTURING CORP.
WILMINGTON, DELAWARE

Anchor Cap Corporation Finances American Metal Cap Purchases

Anchor Cap Corp. offers common stockholders of record March 4 additional common at $50, in ratio of 15/100 share to each share held. Rights expire March 25.

Proceeds are to finance physical consolidation of American Metal Cap Co., recently acquired by Anchor Cap Corp. with the operations of Anchor Cap & Closure Corp. American Metal Cap plant in Brooklyn will be moved to Long Island City and merged with the main plant of the Anchor Cap & Closure Corp., which will be enlarged.

I. R. Stewart, president, stated that giving effect to this new financing, the consolidated balance sheet as of December 31, 1928, of the company's present properties showed current assets of $2,739,348, against current liabilities of $452,264, or a ratio of more than six to one.

Statement of Anchor Cap Corp. and subsidiaries and American Metal Cap Co., recently acquired, for year ended December 31, 1928, shows surplus after providing for reserves, federal taxes and dividends on 45,000 shares of $6.50 dividend convertible preferred stock, was $909,783, equivalent to $5.17 a share on 176,000 shares of common stock now outstanding. Net sales, including rentals of capping machines, amounted to $7,415,987.

Mathieson Declares 300% Stock Dividend

The Mathieson Alkali Works declared one of the largest bonuses of the current year, amounting to 300% in stock. This dividend is subject to the approval by the stockholders of an increase in the authorized common stock from 200,000 shares to 1,000,000 no par shares.

Mathieson also declared the regular quarterly dividends of $1.50 a share on the common stock and $1.75 a share on the preferred stock, payable April 1, to holders of record March 15.

American Commercial Alcohol Reports

American Commercial Alcohol Corporation reports for the eight months ended December 31, 1928, net profit of $710,861, after interest, depreciation and Federal taxes. This is the first formal report since the company was organized last April as a consolidation of the American Distilling Co., the David Berg Industrial Alcohol Co., and the S. M. Mayer Alcohol Co.

After preferred dividends the earnings were equivalent to an annual rate of approximately $10.40 per share on the 87,382 shares of common stock outstanding at the end of 1928. Total income for the eight months amounted to $1,635,830, while net profit carried to surplus, after payment of preferred dividends up to February 1, 1929, totaled $592,794.

The corporation's balance sheet as at December 31, 1928, shows current assets of $3,349,304, against current liabilities of $984,167. Cash on hand amounted to $446,324 and customers' notes and accounts receivable $1,191,509.

Stockholders of the corporation have authorized an increase in the common stock from 150,000 shares to 300,000 shares of no par value. Mr. Grimm explained that the corporation, in taking this action, had in mind the advantage of having unissued stock available for use in connection with possible future expansion and growth.

Household Products, Inc., and subsidiaries, show net profit for 1928 was $3,001,518 after charges and Federal taxes, equal after dividends of subsidiaries to $5.21 a share on 575,000 no par value capital shares. This compares with net profit of $3,001,260 in 1927.

Peoples Drug Stores Co. declared the regular quarterly dividends of 25 cents on the common, payable April 1 to stock of record March 8, and $1.62½ on the 6½% convertible preferred payable March 15 to stock of record March 1.

Monsanto Gains 40%

At a meeting held February 26, 1929, the Board of Directors of Monsanto Chemical Works declared the regular quarterly cash dividend of 62½c per share, payable April 1, 1929, to stockholders of record at the close of business March 20, 1929.

The Board of Directors also declared a 10% stock dividend, payable April 1, 1929, to stockholders of record at the close of business March 20, 1929. No fractions of shares will be issued under said stock dividend, but stockholders entitled to a fraction of a share shall receive in lieu of such fractional share a cash dividend on the basis of the average sale price of the stock on the Chicago Stock Exchange on April 1, 1929. The Company's stock is listed on the Chicago Stock Exchange and New York Curb Market.

At the annual meeting of the stockholders, held on the morning of the same day, the following directors were re-elected to serve during the ensuing year: John F. Queeny, Edgar M. Queeny, Gaston Du Bois, Theodore Rassieur, Joseph D. Lumaghi, J. W. Livingston, H. O. McDonough, James H. Becker and Howell W. Murray

At the Directors' Meeting above-mentioned, the following officers were elected to serve during the ensuing year: John F. Queeny, chairman of the board; Edgar M. Queeny, president; Gaston Du Bois, vice-president; John W. Boyer, vice-president; J. W. Livingston, Assistant vice-president; Dr. J. Bebie, assistant vice-president; A. G. Fletcher, comptroller; J. D. Gillis, assistant to the president; W. R. Phemister, treasurer; W. W. Schneider, secretary; C. A. Zacher, assistant secretary; J. W. Ludwig, auditor.

The Monsanto Chemical Works report for 1928 a net profit of $944,438 after depreciation, interest, Federal taxes and other charges, equivalent to $8.59 a share earned on 110,000 no par shares. This compares with $672,622, or $6.11 a share in 1927. In addition, the company's British subsidiary, the Graesser-Monsanto Chemical Works, Ltd., earned a net profit of $10,978, after taxes, in 1928. The balance sheet as of Dec. 31, 1928, shows total assets of $11,654,955 and surplus of $2,772,252, while current assets amounted to $2,781,440 and current liabilities to $538,694. The capital stock, valued at $4,186,800, is represented by 125,604 no par shares.

McK. & R. Takes Noyes Bros. & Cutler

McKesson & Robbins, Inc., have absorbed the wholesale drug business of the Noyes Brothers & Cutler Drug Co., St. Paul. This does not include the business of the St. Paul house in physicians' and hospital supplies. Operation of the St. Paul unit will continue under the old name and management will be under the direction of the Minneapolis Drug Company, one of the original units in the consolidation, whose vice-president, George V. Doerr, is vice-president of McKesson & Robbins, Inc.

According to C. Reinold Noyes, president of the Noyes Brothers & Cutler Drug Co., a new company is being organized to carry on the business in physicians' and hospital supplies.

Pro-phy-lac-tic Brush Co., reports for year ended December 31, 1928, net profit of $679,008 after federal taxes, interest and depreciation, equivalent after preferred dividends, to $6.10 a share earned on 100,000 shares of common stock. This compares with $726,491 or $6.56 a share in 1927.

National Distillers Products Corp. and subsidiaries for year ended December 31, 1928, show net profit of $585,105 after interest, depreciation, etc., equivalent to $5.43 a share on 107,720 shares of $7 preferred stock. This compares with $58,973 or 54 cents a share on preferred stock in 1927.

Precipitated Chalk

To meet any quality requirement
A bulk to your own specification
..... U. S. P., if you need it.

YEAR after year, as more chalk buyers found that this Precipitated Chalk did possess just the qualities they require---Uniformity, Whiteness, and Softness and Fluffiness of Texture---the demand for this domestic product grew. And with the demand, facilities increased . . . processes were improved.

Now, with the additional manufacturing facilities and improved plant technique, we are able to supply you with this domestic chalk to meet your own requirements of quality and of bulk, whatever they may be.

Does your formula call for Precipitated Chalk, U. S. P.? We can supply it.

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St. Louis
G. S. ROBINS & CO.

Cleveland
HARSHAW CHEMICAL CO.

New York
HARRIS WAREHOUSE, 260 South Street

Drug Industry Stocks

1929 Feb. 28th Bid	1929 Feb. 28th Asked	1929 High	1929 Low	1928 High	1928 Low	Sales in Feb.	Sales from Jan. 1,1929 to Feb. 28th	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share-$ 1928	Earnings $-per share-$ 1927
								NEW YORK STOCK EXCHANGE					
301¼	305½	305½	241	252½	146	83,100	205,800	Allied Chemical	No	2,178,109	$6.00		10.03
119⅝	121¼	124½	107½	117½	70½	1,045,700	2,198,800	American Can	25	2,473,998	3.00		4.11
141½	141½	141½	140⅜	147	136½	4,200	6,000	pfd	100	412,333	7.00		31.66
53½	53⅝	58½	47½	50⅜	44	27,600	110,900	American Chicle	No	373,190	2.00	9 mo. 6.48	41.04
97	.....	114½	109½	114	107	80	630	pfd	No	33,200	7.00	9 mo. 42.13	6.78
9¼	9½	11	9	15½	10½	23,000	93,500	American Drug Syn	10	1,000,000	0.80		0.81
79⅜	79½	85⅛	75	86	59	26,500	109,000	American Home Products	No	534,000	3.00	6 mo. 2.52	3.67
85	85⅛	92½	77½	83½	70½	3,900	22,400	Certo Corp	No	300,000	3.00	9 mo. 5.19	3.87
19½	20⅜	23½	19	36	20	18,100	46,100	Container Corp. Class A	20	271,189	1.20	9 mo. 1.46	2.26
9¼	9⅜	11½	9	19½	9⅜	39,300	98,800	Container Corp. Class B	No	568,289	.60	9 mo. 0.73	1.13
73½	74⅜	75⅜	60	128⅛	53	404,800	633,200	Continental Can	No	*710,000	*5.00	8 mo. 7.61	7.21
125½	126	126	124½	128	123	60	250	pfd	100	51,125	7.00	8 mo. 111.39	86.82
85½	85⅞	91⅛	68⅜	94	64⅜	64,600	159,100	Corn Products	25	2,530,000	2.00	9 mo. 3.00	3.50
141½	141⅝	144½	141½	146⅜	138½	860	2,870	pfd	100	250,000	7.00	9 mo. 35.63	42.40
67½	69⅛	82½	64⅜	89⅜	62⅜	175,300	784,900	Coty, Inc	No	†327,762	†2.00	9 mo. 9.23	10.80
119	120½	126½	115½	120½	80	51,500	149,300	Drug Incorporated	No	2,183,990	4.00	8 mo. 3.60	11.47
73½	74⅜	84½	72	89⅜	65	136,000	329,700	Fleischmann	No	4,500,000	‡3.50	9 mo. 3.24	4.30
74	74	79½	71	84	64½	8,000	31,300	Household Products	No	575,000	‡4.00	6 mo. 2.64	5.22
18	19	28	18	27½	13½	5,500	12,600	Kresge	10	3,678,720	‡1.60	9 mo. 2.76	3.76
72	99	72	71½	118	110½	400	500	pfd	100	20,000	7.00	9 mo. 512.30	698.85
138½	140⅜	141½	127½	136⅜	79½	446,400	735,700	Lambert Co	No	571,906	‡6.50	9 mo. 6.62	6.23
60½	62	68⅜	58½	64⅜	38	53,200	159,400	Lehn & Fink	No	295,000	3.00	6 mo. 3.25	4.32
.....		39½	29½	40½	28½	700	13,700	Life Savers	No	550,000	1.60	10 mo. 2.10	2.01
57½	58⅜	58½	49	50⅜	45½	25,400	90,200	McKesson & Robbins, Com	No	664,409	1.60	4 mo. 1.42	0.91
60½	61½	62	57½	63⅜	54	19,200	22,600	pfd	50	315,086	3.50	4 mo. 4.15	8.94
200½	210	216⅜	175	190	117½	12,900	32,600	Mathieson Alkali	No	147,207	6.00	9 mo. 9.54	10.93
82½	82½	84⅞	67½	71⅜	51½	21,900	33,300	Nat'l Dist. Pfd	No	107,720	.....		0.55
94½	94⅝	98⅜	81	95⅞	74½	32,400	88,700	Ownes Bottle	25	768,860	4.00	9 mo. 4.13	5.37
74½	74⅞	87⅝	70½	56⅜	47½	33,800	139,500	Park & Tilford	No	200,000	3.00	9 mo. 5.09	3.70
63	65	82½	60½	91	52	60	530	Prophylactic Brush	No	100,000	‡4.00	6 mo. 2.47	6.18
.....		.....	.....	.....	.....	.....	.....	Rossville Com'l Alcohol Corp	No	120,000	.....		
29½	30	41½	29	67½	35½	133,400	441,400	Schulte	No	1,121,667	3.50	6 mo. 1.99	4.90
17	17	20	15⅞	23½	11⅜	4,300	16,900	Sweets Am	50	100,000	1.00	9 mo. 0.97	0.47
145½	148½	154⅞	128	138	102½	138,700	355,200	U. S. Ind Alc	No	240,000	6.00	6 mo. 3.90	7.26
124½	125½	125⅞	124½	125½	118⅝	290	680	pfd	100	60,000	7.00	6 mo. 19.12	36.03
86	88	94½	82	85	58	10,600	68,300	Vick Chemical Co	No	400,000	4.00	6.06	5.36
.....		15	13	25⅜	11⅜	.....	.....	Vivaudou	No	381,573	.....	9 mo. 0.61	2.19
.....	.....	.....	.....	100	78	.....	.....	pfd	100	28,578	7.00	9 mo. 13.32	35.42
200½	203½	222½	195½	225½	175½	77,000	194,200	Woolworth, F. W	25	3,900,000	6.00		9.06
75½	76½	80½	73½	84	68	14,600	54,900	Wrigley	No	1,800,000	‡3.50	9 mo. 4.38	5.43
								NEW YORK CURB					
...	.....	7½	4⅜	21½	6½	1,500	4 900	Allison Drug Class A	No	70,000	.....	6 mo. 0.33	7 mo. 2.03
...	.....	5½	3½	15½	3½	5,300	21,300	Allison Drug Class B	No	95,000	.....	6 mo.	7 mo. 0.89
...	.....	90	78	87½	74	17,200	31,500	American Com'l Alc. Corp. V.T.C.	No	77,000	.....	3 mo. 2.66	
...	.....	40⅜	26½	28½	11⅜	27,700	92,900	Amer. Sol. & Chem. Corp., V.T.C.	No	160,000	.....	1.58	0.17
...	.....	55½	46⅞	47⅞	25½	11,600	49,600	Con. Partic pfd	No	100,000	$3.00	4.00	3.17
...	.....	109½	92½	97½	65	14,200	39,500	Bristol Myers Co. Com	No	180,000	4.00	6 mo. 3.80	5.82
...	.....	.....	.....	.....	.....	.....	.....	Ches. Mfg. Co	25	120,000	.....		8.49
...	.....	80⅜	73	92	75	7,900	15,100	Colgate-Palmolive-Peet Com	No		2.00		
...	.....	.....	.....	.....	.....	.....	.....	pfd	No		6.00		
...	.....	57	56	57½	56	12,500	14,600	Davis Drug Stores Allot. Ctfs	No	100,000	.....	7 mo. 6.71	5.02
...	.....	33⅜	30½	38⅜	23	2,900	4,900	Forhans	No	150,000	1.00	1.89	2.21
...	.....	24⅜	19½	23	7½	1,200	3,900	Heyden Chemical Corp	10	150,000	.....		1.02
...	.....	.....	.....	.....	.....	.....	.....	May Drug Stores	No	200,000	1.50	1.38	1.82
...	.....	67½	61	72	53½	3,100	12,600	Mead-Johnson	No	165,000	3.00	6 mo. 2.94	6.33
...	.....	.....	.....	98	38½	.....	100	Monsanto Chemical	No	110,000	2.50	9 mo. 6.30	6.11
...	.....	12	10	28½	10½	700	1,000	Nauheim Pharmacies Com	No	90,000	.....		3.03
...	.....	32½	20½	37⅛	20½	1,400	2,700	pfd	No	45,000	2.50		8.56
...	.....	58⅛	51⅛	55	38	4,400	12,800	Parke Davis & Co	No	4,747,829	1.00	1.73	1.54
...	.....	94	74½	91	48	14,400	19,850	Peoples Drug Store	No	122,250	1.00		3.31
...	.....	368	281	300	247	4,150	6,000	Proctor & Gamble	20	1,250,000	8.00	11.96	11.38
...	.....	91	80	102½	37½	29,200	46,800	Walgreen Co. Com	No	766,354	.....	9 mo. 2.17	1.59
...	.....	7	5⅛	43	26½	1,300	23,800	Woodworth, Inc., Com	No	100,00(	1.50	6 mo. 1.04	11 mo. 3.68
...	.....	44⅛	31⅛	48⅛	27	8,300	30,200	Zonite Products Corp	No	176,000	.....		6 mo. 0.98
								CLEVELAND					
...	.....	270	200	112½	25	41	337	Dow Chem. Co	No	120,000	6.00		
...	.....	107	105	107	103⅛	95	200	pfd	100	30,000	7.00		
...	.....	32½	27	30	24	1,185	2,805	Miller Wholesale Drug Com	No	17,000	1.60		
...	.....	.....	.....	24	21⅛	2,170	4,595	Weinberger Drug, Com	No	20,000	.....	9 mo. 3.51	1.35
								CHICAGO					
...	.....	29⅛	21½	31⅛	21⅛	12,050	37,500	Lane Drug Co., Com	No	90,000	.....	7 mo. 1.47	3.13
...	.....	32	25	31½	23	6,810	20,610	Cum. pfd	No	65,000	.....	7 mo. 3.20	6.34
								CINCINNATI					
...	.....	.....	.....	.....	.....	.....	.....	Dow Drug Co	No	90,000	1.00		
...	.....	.....	.....	.....	.....	.....	.....	pfd	100	4,000	7.00		
								BALTIMORE					
								Sharp & Dohme, pfd	100	10,000	7.00		
								UNLISTED					
76	80	.....	.....	.....	.....	.....	.....	Heyden Chemical Corp., pfd	100	3,100	7.00		56.18
...	.....	.....	.....	.....	.....	.....	.....	Merck Pfd	100	33,950	5.00		
								Mulford, H. K. & Co	100	30,154	3.00		
...	.....	.....	.....	.....	.....	.....	.....	Noxzema Chem. Co			.....		
...	.....	.....	.....	.....	.....	.....	.....	Squibb Com	No	411,778	.....		1.69
								pfd	No	63,888	6.00		16.92

*Before giving effect to 100% stock dividend.
†Before giving effect to 300% stock dividend.
‡Includes extras.

Prices Current

Medicinal, Aromatic, and Photographic Chemicals, Crude Drugs, Spices, Essential Oils and Concentrates, Miscellaneous Raw Materials, etc.

Chemical prices quoted are of American manufacturers, spot New York, f. o. b. for immediate shipment, unless otherwise specified.

Products sold f. o. b. works are so specified. Imported chemicals are so designated. Resale stocks, when a market factor, are indicated "second hand."

Crude Drugs and Essential Oils are quoted f. o. b. New York (Manhattan with limitations) for immediate shipment.

The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

Acetanilid
Ammonium Valerate

Chemicals

Monthly Review

Alcohol Is In Strong Position

Alcohol is extremely firm and is likely to become more firm and in fact will probably become stronger in price. The reason for this is that the molasses market has been very well under control and those selling the molasses to the alcohol companies have been particular to see that the alcohol companies that they sell to do not cut prices of alcohol. The reason for this lies in the fact that much molasses is now moving on "toll contracts"—contracts by which the alcohol manufacturer pays more or less for his molasses depending upon whether the price of alcohol goes up or down.

But there is an additional reason at the present time for the market strength and that is due to a report from authentic sources to the effect that the molasses crop in Cuba is really a disappointment thus far. One-half of the sugar-cane crop is reported to have been ground. One-half of the anticipated molasses should be on hand. But only one-third of the anticipated molasses is on hand. In other words, if the present rate of production is maintained until the end of the crop, the amount of molasses that will be produced for the year will only be two-thirds of the quantity expected.

At a time when all the molasses is certain to find a ready outlet at current high prices, this shortage will have a very real effect. And a higher market for molasses will have its full effect upon alcohol prices except for those buyers who are covered on contracts which in turn gave the alcohol manufacturers taking these contracts an opportunity to cover their molasses requirements on contract.

Alcohol Buyers Must Watch Molasses Tariff

Another thing that will bear close watching by alcohol buyers is the attempt to place a tariff on blackstrap molasses. If molasses is made subject to a tariff this will be passed directly to the consumer since practically all contracts for alcohol contain a clause passing any changes in tariffs effecting alcohol on to the consumer.

The secretary of the N. W. D. A. and the A. M. T. A. has opposed this tariff as has a representative of sellers of molasses for stock-feeding purposes.

Unless the application is very vigorously opposed, a tariff is certain to be applied to molasses, and, in fact, alcohol producers feel certain that some tariff will be passed anyway. The only help that alcohol producers can see, is that proper pressure from the sugar interests and the users of alcohol will prevent the molasses tariff from being very high.

It is well for the alcohol buyer to remember that it takes three gallons of molasses to make one gallon of alcohol, so the buyer of alcohol will pay three times the molasses tariff on each gallon of alcohol he buys.

	Current Market		1929 High	1929 Low	1928 High	1928 Low
Acetanilid, USP, 200 lb bbls..lb.	.36	.37	.37	.36	.37	.28
Acetone, pure 350 lb drs wks..	.17	.19	.19	.16	.18	.14
Acetphenetidin, 225 lb bbls..lb.	1.25	1.35	1.35	1.25	1.40	1.25
ACID, Acetylsalicylic, 225 lb ....bbls.	.85	.90	.90	.85	.90	.85
Agaric, 1 oz vials.....oz.	.....	3.50	3.50	3.50	3.50	3.50
Arsenous, USP, 220 lb bbls lb.	.....	.18	.18	.18	.18	.18
Benzoic, USP, 100 lb bbls..lb.	.60	.61	.61	.60	.61	.60
Boric, 300 lb bbls.....lb.	.07½	.08	.10½	.07½	.12	.11
Cacodylic, 5 lb. bot.....lb.	.....	8.00	8.00	8.00	8.00	8.00
Camphoric, USP, VIII 1 lb bot.....lb.	4.82	4.82	4.82	4.82	4.82	4.82
Carbolic, USP, crys 112 lb tins.....lb.	.14	.15	.15	.14	.21	.14
Cinnamic, 5 lb cans.....lb.	3.25	3.50	3.50	3.25	3.50	3.25
Citric, USP, crys 230 lb bbl .....lb	.....	.46	.46	.46	.46	.44½
USP, crys imp. 112 lb keg .....lb.	.59	.61	.61	.59	.61	.55
USP, powd 200 lb bbl...lb.	.....	.47	.47	.47	.47	.45½
Diethylbarbituric, 1 lb bot lb.	.....	4.60	4.60	4.60	4.60	4.60
Gallic, USP, 150 lb bbls..lb.	.....	.74	.74	.74	.74	.74
Glycerophosphoric, 25% 1 lb bot.....lb.	1.40	1.75	1.75	1.40	1.45	1.40
Hydriodic, USP, 10% 5 lb bot.....lb.	.....	.80	.80	.80	.80	.80
Hydrobromic, USP, 40% 155 lb. cbys.....lb.	.....	.55	.55	.55	.55	.55
Hypophosphorous, USP, 30% .....lb. 5 gal demis.....lb.	.....	.85	.85	.85	.85	.85
Lactic, USP, VIII 100 lb cbys lb.....	.56	.62	.62	.56	.62	.56
USP, X 100 lb cbys.....lb.	.62	.64	.64	.62	.64	.62
Phenylcinchonic.....lb.	.....	4.50	4.50	4.50	4.50	4.50
Phosphoric, USP, Syr 70 lb drs.....lb.	.14	.15	.15	.14	.16	.14
Pyrogallic, crys 5 lb cans..lb.	1.40	1.50	1.50	1.40	1.50	1.40
Resublimed, 5 lb cans...lb.	1.80	1.85	1.85	1.80	1.85	1.80
Salicylic, USP, 100 lb bbls..lb.	.....	.40	.40	.40	.41	.40
Succinic, 100 lb bbls.....lb.	.....	1.35	1.35	1.35	1.35	1.35
Sulfurous, USP, 6% 100 lb cbys.....lb.	.05	.06	.06	.05	.06	.05
Tannic, USP, fluffy 50 lb bbls. .....lb.	.87	.93	.93	.87	.93	.87
Powd 200 lb bbls.....lb.	.80	.85	.85	.80	.85	.80
Tartaric, USP, 300 lb bbls.lb	.....	.38	.38	.38	.38	.35
Aconitine, Alk, crys 1 oz vials .....oz.	.....	30.00	30.00	30.00	30.00	30.00
Amorphous, 1 oz vials....oz.	.....	20.00	20.00	20.00	20.00	20.00
Adeps Lanae, hyd 350 lb bbls lb.	.15	.16	.16	.15	.16	.15
Anhydrous, 350 lb bbls....lb.	.16	.18	.18	.16	.19	.16
Agaricin, 1 oz vis incl.....oz.	.....	2.32	2.32	2.32	2.32	2.32
ALCOHOL, Benzyl, 5 lb bot lb.	1.25	1.35	1.35	1.25	1.55	1.25
Ethyl, USP, 190 pf 50 gal bbls.....gal.	2.69½	2.79½	2.79½	2.69½	2.79½	2.66½
Pure tax free.....gal.	.61	.69	.69	.61	.77	.54
Grain drums.....gal.	2.69	2.79	2.79	2.69	4.00	2.67
Denatured, drums add 7c for bbls.....						
No. 1 spec.....gal.	.47	.55	.55	.47	.55	.43
1 comp.....gal.	.48	.56	.56	.48	.56	.44
No. 5 comp.....gal.	.47	.55	.55	.47	.56	.44
23 a, spec.....gal.	.48½	.56½	.56½	.48½	.68	.43½
39 b, spec.....gal.	.63	.71	.71	.63	.71	.56
40, spec.....gal.	.58½	.66½	.66½	.58½	.66½	.51½
Isopropyl refd 98.99% drs .....gal.	1.25	1.50	1.50	1.25	1.50	1.25
Phenylethyl, 1 lb bot.....lb.	8.00	10.00	10.00	8.00	10.00	8.00
Aloin, USP, 100 lb cases....lb.	1.35	1.40	1.40	1.25	1.30	.90
Aluminum Acetotartrate kegs .....lb.	....	1.60	1.60	1.60	1.60	1.60
Amidipyrine, 10 lb boxes....lb.	4.25	4.45	4.45	4.25	4.75	4.25
AMMONIUM, Acetate 100 lb kegs.....lb.	.30	.32	.36	.30	.38	.34
Benzoate, USP, 1 lb bot...lb.	.....	1.27	1.27	1.27	1.27	1.27
Borate, 10 lb bot.....lb.	.....	.35	.35	.35	.35	.35
Bromide, USP, 450 lb bbls..lb.	.48	.50	.50	.48	.50	.48
Imported, 112 lb boxes..lb.	.48	.50	.50	.48	.50	.48
Carb, USP, lump 100 lb kegs .....lb.	.....	.13½	.13½	.13½	.13½	.13½
USP, powd 100 lb kegs..lb.	.....	.14½	.14½	.14½	.14½	.14½
Citrate, 100 lb kegs.....lb.	.85	.90	.90	.85	.90	.85
Ichthyolate, as to brand..lb.	4.00	4.50	4.50	4.00	4.50	4.00
Iodide, USP, 25 lb jars...lb.	.....	5.20	5.20	5.20	5.20	5.20
Phosphate, dibasic 250 lb bbls .....lb.	.48	.50	.50	.43	.48	.43
Salicylate, USP, 100 lb kegs .....lb.	1.15	1.20	1.20	1.15	1.20	1.15
Valerate, USP, 25 lb jars...lb.	2.75	2.90	2.90	2.75	2.90	2.75

FINE HEYDEN CHEMICALS

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HEYDEN CHEMICAL CORP.
45 E. 17TH STREET NEW YORK
180 N. WACKER DRIVE CHICAGO

{ *Monthly Review* }

Bismuth Subnitrate Still Selling at Loss

The makers of bismuth salts report no change in the situation. The competition in the subnitrate continues just as ruthless as ever with makers selling below the cost of production. There has been no change in the position of the metal which is now under the control of American smelters.

It must be remembered that all buyers of the metal pay the same price, and that after processing it so as to produce the subnitrate, the sale of the subnitrate at the same price as the metal cannot be a paying proposition.

No change is anticipated in the immediate future and still lower prices might become effective before the end of the competitive battle arrives. In the meanwhile buyers would do well to have a good stock of subnitrate on hand as they can not go far wrong at prices that represent a loss to the producer.

Iodine Information

Imperial Institute, England, has prepared a monograph on iodine containing the following information:

"Even if iodine came into more general use all over the world for these and kindred purposes, the amount consumed would be small compared with the potential production of iodine in Chile alone. To increase consumption, outlets would have to be found for iodine in chemical or metallurgical industries, including perhaps many purposes for which bromine is now used. For its use on a large scale in industry the price of iodine would have to be considerably reduced, and this depends on the general adoption in the Chilean nitrate industry of large-scale methods on modern lines.

"Before the control of the industry by the Chilean Association and the International Combine, sales were effected by the different producers individually, and considerable fluctuations in price accompanied by much speculation were common; but after control was established, prices for Chilean crude iodine became more regular, as will be seen in the following table by comparing the prices before and after 1884:—

Year	*Price (per oz.)*	*Year*	*Price (per oz.)*
1841	3¾d.	1884	9d.
1845	25⅝d.	1894	7½d.
1871	about 26d.	1904	8½d.
1882	5d.	1919	12d.
		1927	12d.

"The present price of 1s. per oz. is maintained, and little reduction is likely to take place until a greater demand is created. The Association of Iodine Producers in Chile, consisting of members of the Association of Nitrate Producers in Chile, was formed in 1923, and has been a corporation of legal standing under Government approval. In the period 1878-1880 it existed as the Iodine Combine, which was continued in a reconstructed form from 1880 to 1923. Its objects have been to increase iodine consumption; to consolidate the interests of iodine producers; to look after the interests of associates in the selling of iodine; to work in unison with producers outside Chile and help to forward the progress of the industry. The amount of iodine or quota which is allowed to be produced at each nitrate plant is determined by its nitrate producing capacity, and shipments must be made according to this

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Amylene Hydrate, 1 lb bot..lb.	.....	7.10	7.10	7.10	7.10
Antipyrine, USP, 100 lb cans.lb.	1.53	1.55	1.55	1.53	1.75	1.53
Apomorphine Hydrochloride, ¼ oz. vials.....oz.	22.60	22.70	22.70	22.60	35.80	22.60
Arecoline Hydrobrom, 1 oz vials .....oz.	7.75	8.75	8.75	7.75	11.45	7.75
Aspidospermine Amorphous..oz.	.....	15.00	15.00	15.00	15.00	15.00
Atropine Alk, USP, 1 oz. vials .....oz.	7.00	9.10	9.10	7.00	9.10	9.10
Methyl bromide, 1 oz vials.oz.	.....	25.00	25.00	25.00	25.00	25.00
Sulfate, 5 oz cans.....oz.	.....	3.00	3.00	3.00	3.00	3.00
Single ounce.....oz.	.....	3.15	3.15	3.15	3.15	3.15
Barium Iodide, 5 lb box.....lb.	.....	5.15	5.15	5.15	5.15	5.15
Sulfate, X-ray diagn bbls..lb.	.09½	.10	.10	.09½	.10	.09½
BAY RUM Porto Rico, 45 gal. bbls.....gal.	.85	.90	.90	.85	.90	.80
Domestic syn. 50 gal bbl..gal.	.70	.75	.75	.70	.75	.65
St. Thomas, 50 gal bbls..gal.	.80	.90	.90	.80	.90	.80
Benzonaphthol, 5 lb boxes...lb.	2.50	2.60	2.60	2.50	2.60	2.50
Benzoyl Cholride, 500 lb dr..lb.	.....	1.00	1.00	1.00	1.00	1.00
Benzyl Benzoate, Medicinal FFC.....lb.	.....	1.40	1.40	1.40	1.40	1.40
Chloride Redis, 160 lb cby.lb.	.30	.35	.35	.30	.35	.30
Formate, 1 lb bot.....lb.	3.25	3.50	3.50	3.25	3.50	3.25
Succinate, 160 lb cby.....lb.	.....	5.25	5.25	5.25	5.25	5.25
BISMUTH, metal 100 lb cases .....lb.	.....	1.70	1.70	1.70	2.25	1.70
Ammon. Citrate, USP, 5 lb cans.....lb.	.....	5.50	5.50	5.50	5.65	5.50
Betanaphtholate, 5 lb box.lb.	.....	3.10	3.10	3.10	3.35	3.10
Citrate, USP, 5 lb cans....lb.	.....	2.75	2.75	2.75	2.95	2.75
Chloride.....lb.	.....	3.15	3.15	3.15	3.40	3.15
Hydroxide.....lb.	.....	3.05	3.05	3.05	3.30	3.05
Nitrate, 25 lb jars.....lb.	.....	1.80	1.80	1.80	1.95	1.80
Oxide anhydrous.....lb.	.....	3.40	3.40	3.40	3.70	3.40
Oxychloride, 25 lb boxes...lb.	.....	3.10	3.10	3.10	3.35	3.10
Salicylate, 25 lb boxes.....lb.	.....	1.80	1.80	1.80	1.95	1.80
Subcarbonate, USP, 25 lb boxes.....lb.	.....	2.20	2.20	2.20	2.70	2.20
Subcarbonate, X-ray diag 1 lb. bot.....lb.	.....	3.45	3.45	3.45	3.65	3.40
Subgallate, USP, 25 lb boxes .....lb.	.....	2.50	2.50	2.50	2.70	2.50
Subiodide, 5 lb lots.....lb.	.....	4.25	4.25	4.25	4.40	4.20
Subnitrate, USP, 25 lb jar..lb.	1.60	1.65	1.65	1.60	2.30	1.60
Subsalicylate, USP, 25 lb boxes.....lb.	.....	2.90	2.90	2.90	3.15	2.90
Tannate.....lb.	.....	2.65	2.65	2.65	2.65	2.45
Borax, crys USP, 400 lb bbls.lb.	.....	.03½	.03½	.03½	.05	.03½
Bromoform, USP, 5 lb bot cases .....lb.	1.65	1.90	1.90	1.65	1.90	1.65
Butylchloral Hydrate bot....lb.	4.00	5.00	5.00	4.00	5.00	4.00
Cadmium iodide, 10 lb bot...lb.	.....	4.55	4.55	4.45	4.55	4.45
CAFFEINE Alk, USP, 1..... 100 lb kegs.....lb.	2.90	2.95	2.95	2.90	3.20	2.80
Citrated, 50 lb cans.....lb.	2.35	2.60	2.60	2.00	2.25	2.00
Hydrobromide, 1 lb bot...lb.	4.80	5.00	5.00	4.80	5.00	4.65
Hydrochloride, 1 lb bot...lb.	6.05	6.55	6.55	6.05	6.55	6.05
Sulfate, 1 lb bot.....lb.	5.40	5.90	5.90	5.40	5.90	5.40
Sodium Benzoate, tins....lb.	.....	3.05	3.05	3.05	3.05	3.05
Salicylate, tins.....lb.	.....	2.95	2.95	2.95	2.95	2.95
Calcium Bromide, 100 lb cs..lb.	.....	.60	.60	.60	.60	.60
Carb, USP, 175 lb bbls....lb.	.04½	.06½	.06½	.04½	.06½	.04½
Glycerophos, 250 lb bbls...lb.	.....	1.40	1.40	1.40	1.40	1.40
Hypophos, USP, 25 lb cans lb.	.60	.65	.65	.60	.65	.60
Iodide, 5 lb bot.....lb.	.....	4.35	4.35	4.35	4.35	4.35
Lactate, USP, 500 lb bbls lb.	.45	.50	.50	.45	.50	.45
Lactophosphate Soluble...lb.	.....	1.20	1.20	1.20	1.20	1.20
Powdered tins.....lb	.....	1.00	1.00	1.00	1.00	1.00
Insol, powd tins.....lb.	.....	.50	.50	.50	.50	.50
Sulfide, USP, 100 lb drs...lb.	.21½	.24	.24	.21½	.25	.20
CAMPHOR, Jap. ref. slabs 100 lb. cases.....lb.	.59½	.60	.60	.59½	.66	.57
Refined powd.....lb.	.63	.64	.64	.63	.70	.62
½ oz tab, 100 lb cases....lb.	.73	.74	.74	.73	.75	.68
Liniment, bbls.....gal.	2.20	2.30	2.30	2.20	2.30	2.20
Monobrom, 100 lb cases...lb.	1.85	1.90	1.90	1.85	1.90	1.85
Casein edible, 100 lb kegs...lb.	.45	.55	.55	.45	.55	.45
Chalk drop, 175 lb bbls.....lb.	.....	.03½	.03½	.03½	.03½	.03½
Precip light, 250 lb csk....lb.	.....	.04½	.04½	.04½	.04½	.04½
Heavy 540 lb csks.....lb.	.02½	.03½	.03½	.02½	.03½	.02½
Bulk.....ton	.....	5.00	5.00	5.00	5.00	5.00
English, 7 lb bags.....lb.	.....	.08½	.08½	.08½	.08½	.08½
Charcoal Animal medicinal jars incl.....lb.	.....	.50	.50	.50	.50	.50
Charcoal Wood, powd, 100 lb. bbls.....lb.	.05½	.06	.06	.05½	.06	.05½
Chloroform, USP, 50 lb drs...lb.	.....	.30	.30	.30	.30	.28
Chloral Hydrate, USP, 25 lb jars.....lb.	.75	.80	.80	.75	.80	.70
100 lb drums.....lb.	.70	.75	.75	.70	.75	.65
Cholesterin.....oz.	5.50	5.85	5.85	5.50	5.85	4.00
Chromium Sulfate Scales, tins .....lb.	.55	.60	.60	.55	.60	.55
Powdered tins.....lb.	.60	.65	.65	.60	.65	.60
Chrysarobin, 50 lb tins.....lb.	3.75	4.10	4.25	3.75	4.25	3.65
Cinchonine Alk, 100 oz tins.oz.	.....	.38	.38	.38	.38	.38
Crystal.....oz.	.43	.46	.68	.65	.68	.65
Sulfate, 100 oz tins.....oz.	.....	.25	.25	.25	.25	.25
Cinchonidin Sulfate, 100 oz tins .....oz.	.35	.35	.35	.35	.35	.35
Cocaine Alk, USP, 1 oz vial..oz.	.....	11.07	11.07	11.07	11.07	11.07
Hydrochloride, USP,.....oz.	.....	8.50	8.50	8.50	8.50	8.50
Cocoa Butter, 12 lb boxes...lb.	.42	.45	.45	.42	.50	.40

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Brucine Sulphate
Brucine Alkaloid
Codeine Sulphate
Atropine Alkaloid
Guaiacol Benzoate
Aconitine and Salts
Veratrine Alkaloid
Codeine Phosphate
Duboisine Sulphate
Pilocarpine Nitrate
Hydrastine Sulphate
Acid Diethylbarbituric
Colchicine Amorphous
Berberine Sulphate Acid
Arecoline Hydrobromine
Veratrine Hydrochloride
Hydrastine Hydrochloride
Berberine Sulphate Neutral
Strychnine Sulphate Crystal
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Creosote Carbonate
Morphine Sulphate
Guaiacol Carbonate
Hydrastine Alkaloid
Cocaine Hydrochloride
Emetine Hydrochloride
Hyoscine Hydrobromide
Berberine Hydrochloride
Yohimbin Hydrochloride
Pilocarpine Hydrochloride
Hyoscymine Hydrobromide
Hydrastinine Hydrochloride
Strychnine Sulphate Powder
Apomorphine Hydrochloride
Hyoscymine Sulphate Crystals
Ethylmorphine Hydrochloride

THE HOFFMANN LAROCHE CHEMICAL WORKS, INC.

17-19-21 CLIFF STREET, NEW YORK, N. Y.

{ Monthly Review }

quota, which is a means of regulation of output and of prevention of overstocking of the market."

The imports (less re-exports) and domestic exports of iodine and iodides, excluding ethyl iodide and potassium iodide, for the United Kingdom have been:—

Year	*Imports (less re-exports) in lbs.*	*Domestic exports in lbs.*
1920	462,103	192,028
1921	571,978	127,260
1922	24,445	178,037
1923	344,558	120,232
1924	1,010,164	174,999
1925	915,022	121,433
1926	1,543,785	91,692

In Chile there are about 150 nitrate-producing plants, owned by eighty different owners, the total capacity being 3,000,000 tons a year. Owing to a slump in the Chilean saltpetre market almost all the plants were closed down at the end of 1926, but a revival in the industry, beginning in April 1927, as a result of permission for freedom of sale of nitrate, has led to the re-opening of a number of them. The exports of iodine from Chile in 1924 were 1,303,437 lb., and 1,911,511 lb. in 1925. The United States took 1,254,011 lb. in 1919, but this was abnormal, and the average is about 300,000 lb. per annum. The exports from Japan in 1926 showed a marked increase at 64,324 lb. An agreement was recently made by the Chilean Treasury with the Association of Iodine Producers in Chile to the effect that as from June 1929 sales of iodine are to be made exclusively under Chilean auspices. The severe governmental criticism has resulted in a reorganization of the iodine industry in Chile, and research work is being carried out with a view to finding fresh outlets for the product.

Cod Liver Oil Drops to $22.00

The sharp descent of cod liver oil which has brought prices down to a point that represents the lowest value given to this product since late 1924 shows no point of abating. In fact the figures that are coming through from Norway as to the size and condition of the catch indicates that the situation is fundamentally weak.

The first official report of the Lofoten fishing as compared with results of previous years follows:

Year	*Cods*	*Bbls. Crude Oil*
1929	1,100,000	1,254
1928	150,000	84
1927	700,000	747
1926	800,000	1,459
1925	400,000	740

The country's total catch and production thus far amount to:

Year	*Cods*	*Bbls. Crude Oil*
1929	6,100,000	6,816
1928	2,500,000	2,181
1927	3,500,000	3,780
1926	3,500,000	5,305
1925	2,400,000	3,953

In the country's total production, it is stated, is included the result of the winter fishing in Finmarken which amounts to 3,590 bbls., and which has not been included in former statistics.

The livers are yielding from 52 to 55% of oil, as compared with last year's yield of from 45 to 50%.

Norwegian sellers are explaining the fact that prices declined at the close of last year in the face of the bullish

	Current Market	1929 High	1929 Low	1928 High	1928 Low
CODEINE Alk, 1 oz vials, 10 lots oz.	.....	10.37	10.37	10.37	10.87	10.37
Hydrobromide oz.	.....	7.42	7.42	7.42	7.92	7.42
Hydrochloride oz.	.....	9.37	9.37	9.37	9.87	9.37
Nitrate, oz vl 10 oz lots oz.	.....	8.30	8.30	8.30	8.80	8.30
Phosp. oz vl, 10 oz lots oz.	.....	7.92	7.92	7.92	8.42	7.92
Salicylate oz.	.....	6.75	6.75	6.75	7.25	6.75
Sulfate, oz vl, 10 oz lots oz.	.....	8.42	8.42	8.42	8.92	8.42
COD LIVER OIL Nor., 30 gal bbls bbl.	22.00	24.00	36.00	22.00	48.00	38.00
Newfoundland bbl.	.....	46.00	46.00	46.00	46.00	46.00
Colchicino Alk, USP, 1 oz vl oz.	.....	20.00	20.00	20.00	20.00	20.00
Salicylate, 1 oz vls oz.	.....	35.50	35.50	35.50	35.50	35.50
Collodion, USP, 30 lb drs lb.	.....	.23	.23	.23	.23	.23
Corn Syrup, 42 deg. 50 gal bbls. 100 lb.	3.91	4.16	4.16	3.91	4.51	3.31
Cream Tartar, USP, 300 lb bbls lb.	.27¾	.28	.28	.27¾	.28	.26
Imp. powd. 224 lb bbls lb.	.26¾	.27	.27	.26¾	.27¾	.25¼
Creosote, USP, 42 lb cbys lb.	.40	.42	.42	.40	.42	.40
Carbonate, 150 lb lb.	1.50	1.60	1.60	1.50	1.60	1.50
Cresol, USP, 400 lb drums lb.	.....	.20	.20	.20	.20	.20
500 lb drums lb.	.....	.20	.20	.20	.20	.20
DIGITALIN Pure, 1 oz vial oz.	15.00	15.50	15.50	15.00	15.50	15.00
Dover's Powder, USP, 5 lb tin lb.	2.45	2.50	2.50	2.45	2.50	2.45
Duboisine Sulfate, 1 oz vl oz.	.....	30.07	30.07	30.07	30.07	30.07
Emetine Alk, 15 gr vial oz.	.....	.85	.85	.85	.85	.85
Hydrochloride, USP, 1 oz vl oz.	35.00	36.00	36.00	35.00	36.00	35.00
15 grain vials oz.	2.50	2.70	2.70	2.50	2.70	2.50
Epsom Salts, USP, 200 lb bbls 100 lb.	2.25	2.50	2.50	2.25	2.50	1.85
Imp. 100 lb bbls 100 lb.	1.95	2.00	2.00	1.95	2.00	1.95
Ergotin Bonjean, 1 lb jars lb.	18.50	19.00	19.00	18.50	21.00	15.25
Eserine Alk, 1 oz vials oz.	.....	50.00	50.00	50.00	40.00	40.00
Salicylate, 1 oz vials oz.	.....	40.00	40.00	40.00	40.00	40.00
Sulfate, USP, VIII 1 oz vials oz.	.....	40.00	40.00	40.00	40.00	40.00
ETHER, USP, 55 lb drums lb.	.....	.18	.18	.18	.16	.15
Anaesthesia, 55 lb drums lb.	.....	.23	.23	.23	.21	.20
Nitrous, 1 lb bot lb.	.....	.80	.98	.80	.95	.95
Ethyl Chloride, 200 lb bot lb.	.22	.24	.24	.22	.25	.22
Ethyl Iodide, 5 lb bot lb.	.....	6.25	6.25	6.25	6.25	6.25
Formaldehyde, USP, 100 lb cbys lc-l wks lb.	.10½	.10½	.10½	.09¾	.10	.07¾
Gall Extract lb.	.20	.21	.21	.20	.21	.20
Gelatin, USP, Silver, 100 lb cs lb.	.55	.60	.60	.55	.60	.55
Pure Food, 50 lb bbls lb.	.53	.55	.55	.53	.55	.53
GLANDULAR SUBSTANCES						
Duodenal Substance, 1 lb lots	.....	5.50	.....	.....	.....	.....
Liver Substance (Hepatic) 1 lb lots	.....	4.50	.....	.....	.....	.....
Orchic Substance (Testicular)	.....	4.75	.....	.....	.....	.....
Ovarian Substance, whole, 1 lb lots	.....	26.00	.....	.....	.....	.....
Ovarian Residue, 1 lb lots	.....	20.00	.....	.....	.....	.....
Pituitary Substance, whole 1 lb lots	.....	40.00	.....	.....	.....	.....
Pituitary Substance, Anterior Lobe, 1 lb lots	.....	27.00	.....	.....	.....	.....
Thyroid, U. S. P., 1 lb lots	.....	4.75	.....	.....	.....	.....
Oxgall Powder, 1 lb lots	.....	1.35	.....	.....	.....	.....
Glucose, (grape sugar) dry 70° bags c-l NY 100 lb.	3.14	3.24	3.24	3.14	3.24	3.14
GLYCERIN, CP, 550 lb drums lb.	.15	.15½	.15½	.15	.19	.15
Gold Chloride, bottles oz.	12.00	12.50	12.50	12.00	12.50	12.00
Guaiacol, liq. USP. 100 lb cbys lb.	1.65	1.75	1.75	1.65	2.25	1.75
Crystals lb.	2.25	2.50	2.50	2.25	2.50	2.25
Benzoate, 1 lb bottles lb.	.....	13.00	13.00	13.00	3.00	13.00
Carbonate, 5 lb boxes lb.	1.70	2.50	2.50	1.70	2.50	1.70
Haarlem Oil, bot 6 gr cases gr.	.....	3.25	3.25	3.25	3.25	3.25
Imported, 5 gross cases gr.	.....	3.50	3.50	3.50	3.50	3.50
Halazone, 5 lb bot lb.	2.75	3.25	3.25	2.75	3.25	2.75
Hexamethylenetetramine, USP, 100 lb dr lb.	.56	.62½	.62½	.56	.62½	.52
Homatropine Hydrobrom USP. oz.	.....	14.50	14.50	14.50	14.50	14.50
5 oz and 1 oz vials oz.	.....	13.50	13.50	13.50	13.50	13.50
Hydrastine Alk, USP, 1 oz vial oz.	20.50	21.00	21.00	20.50	21.00	20.50
Hydrochlide, USP, 1 oz vials oz.	20.50	21.00	21.00	20.50	21.00	20.50
Sulfate, 1 oz vial oz.	22.50	23.00	23.00	22.50	23.00	22.50
Hydrastinine Hydrochloride, USP, 15 gr vials oz.	.....	40.00	40.00	40.00	40.00	40.00
Hydrogen Peroxide, USP, soln 375 lb bbls lb.	.03½	.04½	.04½	.03½	.05	.03½
Hyoscine Hydrobrom, USP, 1 oz vials oz.	.....	13.57	13.57	13.57	13.57	13.57
5 oz, 1 oz vials oz.	13.07	13.57	13.57	13.57	13.57	13.07
Hyoscyamine Alk, crystals, 1 oz vials oz.	.....	25.07	25.07	25.07	25.07	25.07
Amorphous, 1 oz vial oz.	.....	75.07	75.07	75.07	75.07	75.07
Hydrobromide, USP, 1 oz vial oz.	.....	35.07	35.07	35.07	35.07	35.07
Sulfate, 1 oz vial oz.	.....	25.07	25.07	25.07	25.07	25.07
Hypoquinone, 100 lb kegs lb.	.....	1.25	1.25	1.25	1.25	1.25
ICHTHYOL, tins lb.	4.00	4.25	4.25	4.00	4.25	4.00
Iodide Arsenous, 5 lb bot lb.	.....	5.20	5.20	5.20	5.20	5.20
Arsenous-Mercuric soln, 5 lb bot lb.	.....	.26	.26	.26	.26	.26

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Chemicals

Monthly Review

statistics sent by an unexpected large Iceland production. The following figures are given for Norwegian production which accounts for the bullish attitude of last year:

Year	Bbls. Crude Oil
1928	43,949,000
1927	62,066,000
1926	104,184,000
1925	82,800,000

While the exports were:

Year	Bbls. Crude Oil
1928	93,490,000
1927	79,211,000
1926	101,368,000
1925	78,611,000

The fact that, while the production was very small compared with previous years, the exports were large, is explained by saying that the production of Iceland jumped from 10,000 bbls. in the year before, to 30,000 bbls., and that this oil was sent to Norway and exported from there.

If these figures are inspected it will be seen that the very large production of this year does not include Iceland which is producing very large quantities of oil shipped through Norway and which is blamed by Norwegian producers with upsetting the market at the end of 1928.

The spot market is very heavily supplied and buyers are hard to find and harder to induce. In fact the price is dropping daily. At the beginning of the month $21.00 @ $22.00 per bbls. for the better brands.

Domestic Mercury Active

The Department of Commerce has the following to say regarding American production:

"Interest has been reawakened in the small but essential quicksilver industry of the United States because of recent advances in the price of that commodity. In contrast to previous war-time conditions, the present situation has caused many operators to have confidence in the future of the native industry, and considerable money is being spent both in mining and metallurgical developments.

"The Pacific Experiment Station of the United States Bureau of Mines, Berkeley, Calif., in co-operation with the Bureau's Rare and Precious Metals Experiment Station at Reno, Nev., and the University of California, is collecting available data on recent progress in the metallurgy of quicksilver, with a view to publishing a resume of such improvements as will be of general interest. Advances have been made in recent years in the design and operation of rotary and other kilns; new ideas are being tried in methods of handling dust and fume; and some special methods of treatment have been devised for ores that are especially difficult to reduce.

"In the past, mining methods for quicksilver in this country have usually been of the simplest and most primitive sort. Economic conditions and the nature of the deposits have combined to prevent attempts to use more modern methods. That this situation is changing is indicated by information obtained during the investigation be ng made by the Bureau of Mines. In the foreground of interest are attempts now being made to exploit "low-grade" ores. In Oregon and Washington significant examples were found of ingenious adaption of shrinkage which have been considered only as low-grade deposits, may be classified as ore bodies capable of being worked by efficient modern methods."

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Iodine, crude, 200 lb kegs...lb.	4.35	4.35	4.35	4.20	3.88
Resublimed, 10 lb tars....lb.	4.65	4.70	4.70	4.65	4.70	4.65
Tincture demis.....gal.	4.80	4.80	4.80	4.65	4.65	4.55
Iodoform, powd 10 lb bot...lb.	.....	6.00	6.00	6.00	6.00	6.00
Iron & Ammonium Citrate, USP, 50 lb cans.....lb.	.65	.66	.66	.64	.66	.64
Chloride, USP, lump 400 lb bbls.....lb.	.06	.08	.08	.06	.08	.05½
Citrate, USP, VIII 25 lb can .....lb.	.94	1.01	1.01	.94	1.01	.94
Hypophosphite, 5 lb cans..lb.	1.55	1.65	1.65	1.55	1.65	1.55
Iodide, 1 lb bottles.....lb.	.....	4.28	4.28	4.28	4.28	4.28
Phosphate, USP, 50 lb cans .....lb.	.....	.69	.69	.69	.69	.69
& Potas Oxalate, 250 lb bbl .....lb.	.....	.45	.45	.45	.49	.45
Pyrophosphate, USP, 50 lb .....lb.	.74	.80	.80	.74	.80	.74
& Sod Oxalate, 24 lb box...lb.	.....	.30	.30	.30	.30	.30
Sulfate, USP, crys bbls....lb.	.04½	.04	.04	.04½	.04	.04½
Ferrous dried bbls.....lb.	.....	.08	.08	.08	.08	.08
Valerate, tins.....lb.	2.75	3.00	3.00	2.75	3.00	2.75
Jalap Resin, USP lumps, 5 lb tins.....lb.	.....	4.00	4.00	4.00	4.00	4.00
Powdered, tins.....lb.	.....	4.65	4.65	4.65	4.65	4.65
Lead Acetate, USP, 100 lb kegs .....lb.	.15	.18	.18	.15	.18	.15
Iodide, USP, VIII 5 lb bot..lb.	3.20	3.40	3.40	3.20	3.40	3.20
Lecithin, 5 oz jars.....oz.	1.00	1.30	1.30	1.00	1.30	1.00
Licorice Ext Mass, cases....lb.	.14	.20	.20	.14	.20	.14½
Compound powder, bbls...lb.	.11	.13	.13	.11	.13	.11
LITHIUM CARBONATE, 250 lb bbls.....lb.	1.50	1.60	1.60	1.50	1.60	1.50
Citrate, USP, 100 lb kegs..lb.	.....	1.70	1.70	1.70	1.70	1.70
Iodide, 5 lb bottles.....lb.	.....	5.40	5.40	5.40	5.40	5.40
Lobeline Sulfate, ¼ oz vial...oz.	.....	8.75	8.75	8.75	8.75	8.75
Magnesium Carbonate, USP, 100 lb bbls.....lb.	.....	.10½	.12	.10½	.12	.12
English, oz blocks.....oz.	.16	.18	.18	.16	.18	.16
Glycerophosphate, 5 lb tins .....lb.	3.20	3.25	3.25	3.20	3.25	3.20
Hypophosphite, 5 lb cans..lb.	.....	1.05	1.05	1.05	1.05	1.05
Salicylate, 100 lb kegs.....lb.	.....	1.10	1.10	1.10	1.10	1.10
Stearate, bbls.....lb.	.23	.25	.25	.23	.25	.23
Manganese Glycerophosphate, 5 lb tins.....lb.	2.90	3.00	3.00	2.90	3.00	2.90
Hypophosphite, USP, VIII 5 lb cans.....lb.	1.35	1.40	1.40	1.35	1.40	1.35
Iodide, 1 lb bottles.....lb.	6.40	6.65	6.65	6.40	6.65	6.40
MENTHOL, USP, 60 lb cases .....lb.	5.50	5.75	6.00	5.50	6.25	4.10
Synthetic, cases.....lb.	3.00	3.25	3.25	3.00	3.50	3.00
Mercury Metal, 75 lb flasks...fl.	123.00	124.00	124.00	122.00	134.00	120.00
Bichloride, crys 25 lb box..lb.	.....	1.81	1.81	1.81	1.81	1.81
Gran powd, 100 lb kegs..lb.	.....	1.65	1.65	1.65	1.65	1.65
Bisulfate, 25 lb boxes.....lb.	.....	1.62	1.62	1.62	1.62	1.62
Blue Mass, 25 lb boxes.....lb.	.....	1.03	1.03	1.03	1.03	1.03
Powd, 25 lb boxes.....lb.	.....	1.04	1.04	1.04	1.04	1.04
Blue Ointment, USP, 50%, 25 lb cans.....lb.	.....	1.29	1.29	1.29	1.29	1.29
Mild 30%, 25 lb cans....lb.	.....	.92	.92	.92	.92	.92
33 1/3% mercury.....lb.	.....	.94	.94	.94	.94	.94
Calomel, 50 lb boxes.....lb.	.....	2.05	2.05	2.05	2.05	2.05
English.....lb.	2.75	2.80	2.80	2.75	2.80	2.75
Iodide, green, 25 lb jars....lb.	.....	4.80	4.80	4.80	4.80	4.80
Red, USP, 25 lb jars...lb.	.....	4.89	4.89	4.89	4.89	4.89
Yellow, USP, VIII, 25 lb jars.....lb.	4.80	4.80	4.80	4.80	4.80	4.80
Red precip, USP, 25 lb boxes .....lb.	2.17	2.17	2.17	2.17	2.17	2.17
Powd., USP, 25 lb boxes.lb.	2.17	2.17	2.17	2.17	2.17	2.17
White precip, USP, 25 lb boxes.....lb.	.....	2.20	2.20	2.20	2.20	2.20
Powd., USP, 25 lb boxes.lb.	.....	2.25	2.25	2.25	2.25	2.25
Salicylate, 25 lb bot.....lb.	.....	2.32	2.32	2.32	2.32	2.32
With chalk, USP, 25 lb boxes .....lb.	.....	.93	.93	.93	.93	.93
Methanol, Pure Ic-i drs....gal.	.....	.57	.57	.57	.60	.48
Methyl Salicylate, USP, 50 lb cans.....lb.	.42	.45	.45	.42	.45	.42
Methylene Blue, USP, med 5 lb cans.....lb.	2.00	2.05	2.05	2.00	2.05	2.00
Milk powd, 150 lb bbls.....lb.	.14	.15	.15	.14	.15	.14
MORPHINE Alk, 5 oz tin...oz.	.....	9.85	9.85	9.85	10.15	9.85
Acetate, 5 oz tins.....oz.	.....	7.85	7.85	7.85	8.25	7.85
Hydrobromide, 5 oz tins, 10 oz lots.....oz.	.....	7.85	7.85	7.85	8.35	7.85
Hydrochloride, 5 oz tins, 10 oz lots.....oz.	.....	7.75	7.85	7.85	8.35	7.85
Ethyl Hydrochloride, 5 oz tins 10 oz lots.....oz.	.....	9.35	9.35	9.35	9.85	9.35
Sulfate, 5 oz tins, 10 oz lots .....oz.	.....	7.85	7.85	7.85	8.35	7.85
Naphthalene Flake, 175 lb bbls wks.....lb.	.04½	.05	.05	.04½	.05	.04½
Balls, 250 lb bbls wks.....lb.	.05½	.06	.06	.05½	.06	.05½
Oil Mineral White, 50 ga bbls bbls 80-85 vis.....gal.	.60	.65	.65	.60	.65	.60
85-90 vis.....gal.	.65	.70	.70	.65	.70	.65
125-130 vis.....gal.	.70	.80	.80	.70	.80	.70
290 vis.....gal.	1.00	1.10	1.10	1.00	1.10	1.00
Russian 110-115 vis.....gal.	.70	.75	.75	.70	.75	.70
150-155 vis.....gal.	.73	.80	.80	.73	.80	.67
325-335 vis.....gal.	.85	.90	.90	.85	.95	.80
Oxgall, Purified, 5 lb bot....lb.	1.75	2.50	2.50	1.75	2.50	1.75
USP, 5 lb bot.....lb.	2.00	2.50	2.50	2.00	2.50	2.00
Oxyquinoline Sulfate, tins...lb.	8.50	9.25	9.25	8.50	9.25	8.50

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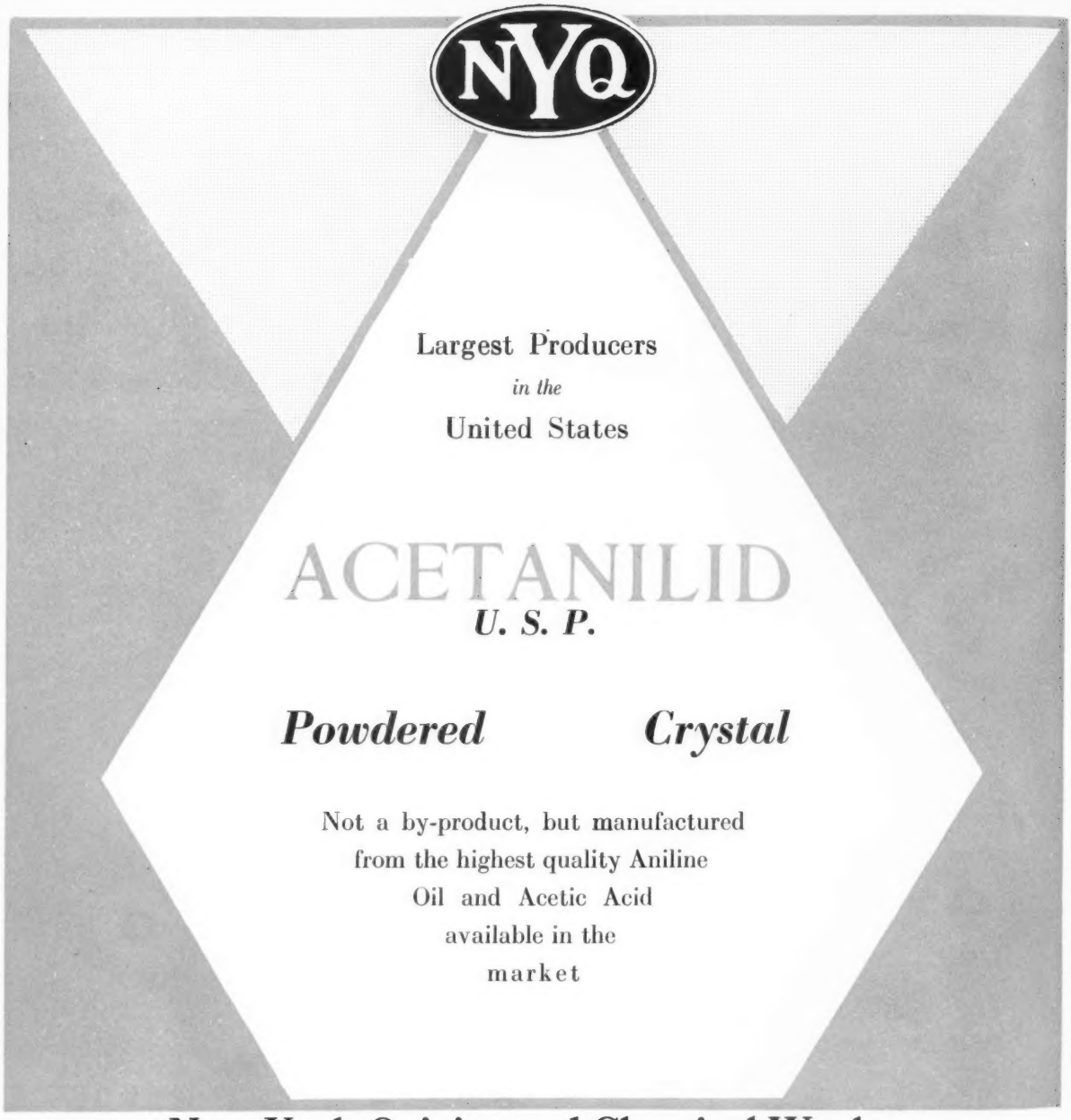

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{ Monthly Review }

World Surplus of Glycerin

Glycerin continues in a dormant position with very little to guide one as to the future. The anti-freeze season is entirely past. Much larger quantities were set aside this year for the anti-freeze market because of the heavy drive that was made. Glycerin producers expected that the heavy advertising carried on both by them and by the producers of glycol would react to take a much larger portion of the market away from the alcohol producers.

However, the winter has been extremely mild although this should not affect the glycerin producers to the same extent that it affects the alcohol producers, because if a car owner is to use glycerin he will use it during the first cold snap. So only one real cold period is necessary to cause quite heavy consumption of glycerin.

It is thought in many directions that stocks of anti-freeze of glycerin are quite large and that they must be thrown on the market shortly.

The situation abroad is much the same as it is here indicating that there is to-day a world surplus of glycerin, as compared with a year or two ago when there was a world shortage of the product following the absorption of the heavy surplus stocks on hand following the World War.

The situation abroad is described in the following report to the Department of Commerce by Trade Commissioner Fox:

"British glycerin producers have for some time past experienced difficulty in disposing of the product due in part to lower prices on the continent and in part probably also to other competition, such as that from ethylene-glycol, both in England and in the United States, which until recently has been a large taker of British glycerin. Exports of crude glycerin, however, rose to more normal proportions in October and November, and for the 11 months ending November 30 the total shipments were only slightly less than in the corresponding period of 1927, while at the same time exports of distilled glycerin showed a substantial increase, comparative figures being as follows: Exports of crude glycerin, 11 months, 1927—22,055 hundredweight; 1928—21,532 hundredweight; distilled glycerin, 1927—11 months—96,251 hundredweight; 1928—120,017 hundredweight."

Phenol Remains in Strong Position

Phenol (acid carbolic) remains in a very firm position. In fact, the position might be termed strong except for the large number of manufacturers and for the fact that the production capacity of these manufacturers is much greater than the consumption. However, the large stocks that were causing manufacturers to cut prices to as low as 10c per pound have entirely disappeared and a range of from 12½c @ 15c per pound is now in effect with 14c @ 15c per pound quoted on the smaller sized drums.

The strong market for phenol is not expected to have any effect upon the market for the derivatives of phenol such as salicylates and phenolphthalein, as these derivative markets did not decline when phenol did. In fact one seller declared recently that the phenol market and the markets for phenol derivatives did not seem to respond to one another at all any more. The phenol market has expanded into the plastic market to such an extent that the amount of phenol used in medicinals has no bearing on the position of the market. Furthermore, the markets for salicylates, phenolphthalein, etc., are entirely dependent

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Pancreatin, USP, 100 lb....lb.	.....	1.90	1.90	1.90	.....	.....
Paraffin, refd, 200 lb cs slabs 118-120 deg MP.....lb.	.08	.09	.09	.08	.09	.08
128-132 deg MP.....lb.	.07½	.07¾	.07¾	.07½	.07¾	.07½
Para-Aldehyde, USP, 100 gal drums.....lb.	.67	.77	.77	.67	.77	.67
Pepsin, USP, 100 lbs. 1:3000.lb.	.....	2.25	2.25	2.25	2.50	2.50
100 lbs. 1:6000.....lb.	.....	4.00	4.00	4.00	5.00	5.00
100 lbs. 1:10000.....lb.	.....	6.50	6.50	6.50	8.35	8.35
Peptone, powd, 5 lb bot.....lb.	.....	.....	.....	.....	.....	.....
Petrolatum, Lily White, USP 400 lb bbls.....lb.	.08	.09	.09	.08	.10	.09
Snow White, USP, 400 lb bbls.....lb.	.09¾	.10	.10	.09¾	.13¼	.11¾
PHENOLPHTHALEIN, USP, 100 lb drums.....lb.	1.10	1.20	1.20	1.10	1.20	1.10
5 lb cans 100 lb lots..lb.	1.23	1.30	1.30	1.23	1.30	1.23
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots .....oz.	.....	3.25	3.25	3.25	3.25	3.25
Nitrate, 25 oz lots.....oz.	.....	3.25	3.25	3.25	3.25	3.25
Single ounce.....oz.	.....	3.50	3.50	3.50	3.50	3.50
Alkaloid, 15 gr vials.....vl.	.....	.75	.75	.75	.75	.75
Piperazine Hydrate, 1 lb bot.lb.	.....	15.00	15.00	15.00	15.00	15.00
Piperadine, 25 oz bottles....lb.	.....	8.00	8.00	8.00	8.00	8.00
Popodhyllin 5 lb bottles....lb.	4.35	4.50	4.50	4.35	4.50	4.35
Potassium Acetate, USP, 100 lb kegs.....lb.	.29	.30	.30	.29	.30	.29
Bicarb, USP, crys 320 lb bbls .....lb.	.13	.13½	.13½	.08½	.09	.08½
Bromide, USP, crys 100 lb cs .....lb.	.42	.43	.40	.39	.43	.42
Citrate, USP, 50 lb bbl....lb.	.51	.53	.55	.51	.55	.51
Guaiacol Sulfonate.....lb.	1.95	2.25	2.25	1.95	2.25	1.95
Hypophosphite, 10 lb cans.lb.	.80	.85	.85	.80	.85	.80
Iodide, USP, 100 lb cases..lb.	3.50	3.55	3.55	3.50	3.80	3.25
Lactophosphate, 4 oz bot..lb.	.....	.90	.90	.90	.90	.90
Permangan, USP, crys, 100 lb drs wks.....lb.	.15	.15½	.15½	.15	.16½	.14½
Phosphate dibasic pure, kegs .....lb.	.....	.49	.49	.49	.49	.49
Salicylate, 25 lb cans.....lb.	.....	1.18	1.18	1.18	1.18	1.18
Sulfate, USP, VIII, 100 lb kegs.....lb.	.13	.15	.15	.13	.15	.13
Sulfocyanide, CP 15 lb jars lb.	.....	.50	.50	.50	.50	.50
Tartrate, CP, tins.....lb.	.....	.65	.65	.65	.65	.65
Pyrogallol, USP, see Acid Pyrogallic.....	.....	.....	.....	.....	.....	.....
Quinidine Alk, 100 oz tins...oz.	.70	.75	.75	.70	.75	.70
Sulfate, 100 oz tins.....oz.	.....	.50	.50	.50	.50	.50
QUININE SULFATE, USP, 100 oz tins.....oz.	.....	.40	.40	.40	.40	.40
1 oz tins, 100 oz lots....oz.	.....	.47	.47	.47	.47	.47
Dutch, 100 oz tins.....oz.	.....	.40	.40	.40	.40	.40
Java, 100 oz. tins.....oz.	.....	.40	.40	.40	.40	.40
Japanese 100 oz tins.....oz.	.....	.40	.40	.40	.40	.40
Acetate.....oz.	.....	.78	.78	.78	.78	.78
Arsenate.....oz.	.....	.78	.78	.78	.78	.78
Benzoate.....oz.	.....	.78	.78	.78	.78	.78
Bisulfate, USP.....oz.	.....	.40	.40	.40	.40	.40
Resale.....oz.	.37	.39	.39	.37	.39	.37
Citrate.....oz.	.....	.51	.51	.51	.51	.51
Dicarbonate, 1 oz tins....oz.	.....	2.56	2.56	2.56	2.56	2.56
Dihydrobromide.....oz.	.....	.54	.54	.54	.54	.54
Dihydrochloride, USP....oz.	.....	.54	.54	.54	.54	.54
Ethyl Carbonate, 16 oz tins .....oz.	.....	.58	.58	.58	.58	.58
Ferrocyanide.....oz.	.....	.78	.78	.78	.78	.78
Formate.....oz.	.....	.73	.73	.73	.73	.73
Glycerophosphate.....oz.	.....	.80	.80	.80	.80	.80
Hydrobromide, USP.....oz.	.....	.50	.50	.50	.50	.50
Hydrochlorosulfate.....oz.	.....	.54	.54	.54	.54	.54
Hydrochloride & Urea, USP .....oz.	.....	.74	.74	.74	.74	.74
Hypophosphite.....oz.	...	.70	.70	.70	.70	.70
Lactate.....oz.	.....	.66	.66	.66	.66	.66
Phenolsulfonate.....oz.	.....	.78	.78	.78	.78	.78
Phosphate.....oz.	.....	.62	.62	.62	.62	.62
Salicylate, USP.....oz.	.....	.52	.52	.52	.52	.52
Tannate, USP.....oz.	.....	.41	.41	.41	.41	.41
Tartrate.....oz.	.....	.78	.78	.78	.78	.78
Valerate.....oz.	.....	.78	.78	.78	.78	.78
& Urea Hydrochloride, USP .....oz.	.....	.88	.88	.88	.88	.88
Rennet, N. F. 5 lb 1:25,000...lb.	2.95	3.50	3.50	2.95	3.50	2.95
Resorcinol, USP, 25 lb cans..lb.	1.60	1.65	1.75	1.65	2.00	1.70
Rochelle Salt, USP, 225 lb bbl .....lb.	.23	.23½	.23½	.23	.23½	.23
Imp. USP, 300 lb bbls.....lb	.....	.23	.23	.23	.23	.23
Rock Sugar, 5 lb boxes.....lb.	.....	.15	.15	.15	.15	.15
Saccharin, USP, 10 lb cans...lb.	1.70	1.80	1.80	1.70	1.80	1.70
USP, Soluble, 10 lb cans...lb.	1.75	1.85	1.85	1.75	1.85	1.75
Salicin, USP.....lb.	.....	4.86	4.86	4.86	4.86	4.86
SALOL, USP, 100 lb drums..lb.	.....	.90	.90	.90	.90	.90
Saltpetre, powd, bbls wks....lb.	.06½	.08¼	.08¼	.06½	.08¼	.06½
Santonin, USP, bulk.....lb.	.....	129.50	129.50	129.50	145.00	129.50
Saponin, refined.....lb.	1.30	1.50	1.50	1.30	1.50	1.30
Siedlitz Mixture, 250 lb bb..lb.	.....	.....	.....	.....	.....	.....
Silver Metal, American.....oz.	.....	.57½	.57½	.57½	.60¼	.57½
Iodide, 16 oz lots.....oz.	.....	.69	.69	.69	.69	.69
Nitrate, 100 oz bottles....oz.	.40½	.42½	.42½	.40½	.45	.40½
Nucleinate, bulk.....oz.	.....	.37	.37	.37	.37	.37
Proteinate.....oz.	.....	.32	.32	.32	.32	.32
Soap Castile, 50 lb boxes...lb.	.....	.25	.25	.25	.25	.25
USP, powd, 250 lb bbls....lb.	.28	.30	.30	.28	.30	.28
USP, green, 450 lb bbls....lb.	.07½	.07½	.07½	.07½	.07½	.07½

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upon conditions in the drug manufacturing industry and therefore are not directly subject to variations in the phenol market.

Potassium Iodide May Advance

There is a probability that Potassium Iodide might strengthen and might even advance in price. The reason for this is that the Prohibition Commissioner is understood to have warned sellers of tincture of iodide that they must not sell more than 50 gallon bottles of iodine to any one customer within one month. Heretofore, there has been no restriction on the amount of gallon bottles sold. The Prohibition Department can force these restrictions since the producers of tincture are permit holders and these permits can be revoked.

However, there is doubt expressed in the trade that the Prohibition Department can stop the illegitimate use of the tincture by restricting the sale of the gallon bottles. They feel that the tincture will get into illegitimate hands by some other means.

This subject is covered more thoroughly on another page of this issue.

Why Vanillin was Reduced Last Year

The extent of the imports of vanillin during the past year, which caused domestic-manufacturers to reduce their quotations, is not generally realized. And, while the total imports are not large when the total consumption in this country is considered, the fact that multiplied four times in one year, shows why the manufacturers took steps to check the practice.

A report from the Bureau of Foreign & Domestic Commerce follows:

"Vanillin imports into the United States in 1928 increased to more than four times those of 1927, the 1928 figure reaching 15,332 pounds. This is considerably greater than in 1926, when only 221 pounds were brought in. More than half of the 1928 imports came from Germany, the remainder coming from Canada, Great Britain, France, Netherlands, and Switzerland. The peak month for imports of this commodity from all countries was August, although the largest amount imported during the year from any one country was during September, when 2,400 pounds were shipped to this country from Germany. During the five year period, 1923-1927, inclusive, domestic production averaged 312,816 pounds."

Imports of Vanillin Into the United States for Consumption During 1928

	Great Britain Pounds	*France Pounds*	*Germany Pounds*	*Other Countries Pounds*	*Total Pounds*
January-March	...	442	449	50	991
April-June	331	453	925	50	1,759
July-September	998	1,345	4,114	659	7,116
October-December	334	271	2,703	2,158	5,466
Total	1,663	2,511	8,241	2,917	15,332

French Oils Imported Decline

French essential oils imported through the port of Marseille showed a marked decline during 1928:

	1927 *Pounds*	1927 *Value*	1928 *Pounds*	1928 *Value*
Almond oil, sweet	27,113	$17,060	36,841	$23,366
Cassia and cinnamon oil	95,553	111,590	70,223	78,818
Geranium oil	26,015	65,919	32,632	96,533
Lavender oil	24,254	90,505	19,893	93,167
Ylang-ylang oil	7,462	34,831	9,252	44,105
Other oils	39,317	50,662	9,905	17,753
	219,714	370,567	178,746	353,742

	Current Market	1929 High	1929 Low	1928 High	1928 Low
SODIUM BENZOATE, USP, 100 lb bbls.....lb.	.45	.49	.49	.45	.55	.50
Bromide, USP, 100 lb kegs.lb.	.42	.43	.43	.42	.43	.42
Cacodylate, USP, 25 lb bot .....lb.	4.75	5.90	5.90	4.75	6.10	4.75
Citrate, USP, X 50 lb kegs.lb.	.45	.47	.47	.45	.47	.45
USP VIII, 50 lb kegs....lb.	.38	.40	.40	.38	.40	.38
Glycerophosphate, USP, crys 25 lb cans.....lb.	1.40	1.55	1.55	1.40	1.55	1.40
Powder, 25 lb tins.....lb.	1.45	1.60	1.60	1.45	1.60	1.45
Soln, USP, 25 lb tins...lb.	1.05	1.20	1.20	1.05	1.20	1.05
Hypophosphite, USP, 25 lb cans.....lb.	.70	.75	.75	.70	.75	.70
Iodide, USP, 25 lb jars...lb.	4.25	4.30	4.30	4.25	4.30	4.25
Phosphate (Mono-Sodium), 100 lb kegs.....lb.	.30	.31	.31	.30	.31	.30
Di-Sodium USP, granular, 275 lb bbls.....lb.	.07½	.08	.08	.07½	.08	.07½
Pyrophosphate, 100 lb kegs .....lb.	.....	.29	.29	.29	.29	.29
Salicylate, 100 lb kegs....lb.	.....	.47	.47	.47	.47	.47
Silicate, 41° drums.....lb.	.....	.01½	.01½	.01½	.01½	.01½
47° drums.....drm.	.....	12.00	12.00	12.00	12.00	12.00
Sulfocarbolate, USP, 100 lb kegs.....lb.	.....	.31	.31	.31	.31	.31
Sulfocyanate, CP crys, jars included.....lb.	.....	.60	.60	.60	.60	.60
Spartein Sulfate, USP, 25 oz bulk.....oz.	.65	.70	.70	.60	.70	.60
Single oz vial.....oz.	.77	.90	.90	.77	.90	.77
Starch Rice, 140 lb bags.....lb.	.09	.10	.10	.09	.10	.09
STRONTIUM BROMIDE USP, 50 lb kegs.....lb.	.51	.52	.52	.51	.52	.51
Carb, 100 lb kegs wks....lb.	.....	.20	.20	.20	.20	.20
Iodide, USP, 25 lb jars....lb.	.....	4.00	4.00	4.00	4.00	4.00
Lactate, kegs.....lb.	.90	1.10	1.10	.90	1.10	.90
Nitrate, 600 lb bbls NY...lb.	.08	.08½	.08½	.08	.08½	.08
Imp. bbls NY.....lb.	.08	.08½	.08½	.08	.08½	.08
Salicylate, USP, 100 lb keg lb.	.....	1.10	1.10	1.10	1.10	1.10
Strophanthin, USP, 1 oz vial.oz.	.....	19.00	19.00	19.00	19.00	19.00
Crystals.....lb.	.....	75.00	75.00	75.00	75.00	75.00
Strychnine Alk, USP crys, 100 oz tins.....oz.	.....	.66	.66	.66	.66	.56
Powdered.....oz.	.....	.56	.56	.56	.56	.46
Acetate.....oz.	.....	.65	.65	.65	.65	.55
Arsenate, 25 oz cans.....oz.	.....	.65	.65	.65	.65	.55
Glycerophosphite, USP,...oz.	.....	.65	.65	.65	.65	.55
Hydrobromide.....oz.	.....	.65	.65	.65	.65	.55
Hydrochloride.....oz.	.....	.65	.65	.65	.65	.55
Hypophosphite.....oz.	.....	.75	.75	.75	.75	.65
Nitrate, USP.....oz.	.55	.72	.72	.55	.72	.52
Phosphate.....oz.	.....	.65	.65	.65	.65	.55
Sulfate, USP, crys, powd..oz.	.46	.56	.56	.46	.56	.38
Sugar, refined, 275 lb bbl 100 lb.	5.80	5.90	5.90	5.80	5.90	5.80
Milk, USP, 200 lb bbls...lb.	.18	.20	.20	.18	.20	.18
Sulfonethylmethane, USP, 10 lb boxes.....lb.	3.85	4.05	4.05	3.85	4.05	3.85
Sulonmethane, USP, 10 lb box .....lb.	2.65	3.85	3.85	2.65	3.85	2.65
Sulfur flwrs. washed, USP, 125 lb bbl.....lb.	.....	.06	.06	.06	.06	.06
Iodide, USP, VIII, 5 lb bot lb.	.....	4.55	4.55	4.55	4.55	4.55
TARTAR EMETIC, USP, 300 lb bbls.....lb.	.29	.31	.31	.29	.36	.32½
Terebene, tins.....lb.	.....	.85	.85	.85	.85	.85
Terpin Hydrate, USP, 100 lb kegs.....lb.	.40	.42	.42	.40	.47	.40
Theobromine Alk, 5 lb cans..lb.	1.90	2.25	2.25	1.90	2.25	1.90
Sod. Salicylate, 1 lb bot...lb.	.....	2.10	2.10	2.10	2.10	2.10
Sod. Benzoate, 1 oz vials..oz.	.....	1.00	1.00	1.00	1.00	1.00
Thymol, USP, 25 lb tins.....lb.	2.55	2.70	2.70	2.25	2.75	2.25
Iodide kegs.....lb.	6.00	7.00	7.00	6.00	7.00	6.50
Veratrine Alkaloid.....oz.	.....	2.25	2.25	2.25	2.25	2.25
Sulfate, 1 oz vials.....oz.	.....	2.25	2.25	2.25	2.25	2.25
Witch Hazel Ext., 50 gal bbl .....gal.	.80	1.00	1.00	.80	1.00	.80
Zinc Carb, USP, 100 lb keg..lb.	.28	.31	.31	.28	.31	.28
Chloride, USP, 25 jars ex..lb.	.24	.29	.29	.24	.29	.24
Iodide, 5 lb bottles.....lb.	.....	5.22	5.22	5.22	5.22	5.22
Oxide, USP, 100 lb bbls...lb.	.16½	.17½	.18	.16½	.18	.17
Stearate, USP, 50 lb bbl..lb.	.24	.26	.26	.24	.26	.22
Sulfate, USP, 100 lb bbl..lb.	.08	.09	.09	.08	.09	.08
Sulfocarbolate, 100 lb kegs..lb.	.23	.29	.29	.23	.29	.29

Natural Derivatives

Anethol, 2 lb bot.....lb.	1.25	1.30	1.30	1.25	1.30	1.25
Borneol, 1 lb bot.....lb.	2.40	2.50	2.50	2.40	2.60	2.40
Carvol, 5 lb bot.....lb.	3.50	3.60	3.60	3.50	2.85	3.50
Citral, 25 lb cans.....lb.	2.70	2.75	2.75	2.70	2.75	2.70
Citronellal, 1 lb bot.....lb.	2.70	2.75	2.75	2.70	3.25	2.70
Eucalyptol, USP, 50 lb cans..lb.	1.00	1.05	1.05	1.00	1.05	1.00
Eugenol, USP, 25 lb cans....lb.	2.70	2.75	2.75	2.70	2.90	2.70
Geraniol, domestic, 50 lb cases .....lb.	2.50	2.70	2.70	2.50	2.70	2.50
Imported, 5 lb bot.....lb.	2.90	3.10	3.10	2.90	3.10	2.90
Iso-Eugenol, 1 lb bot.....lb.	3.75	3.80	3.80	3.75	4.50	3.75
Imported, 1 lb bot.....lb.	3.70	3.80	3.80	3.70	3.80	3.70
Linalol from Bois de Rose, 5 lb bot.....lb.	3.20	3.25	3.25	3.20	3.25	3.00
Rhodinol, 1 lb bot.....lb.	7.50	7.75	7.75	7.50	7.75	6.00
Saffrol, drums.....lb.	.....	.27	.27	.27	.27	.27
60 lb cans.....lb.	.....	.29	.29	.29	.29	.29

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Aromatic Chemicals

Monthly Review

Camphor Oil Products Continue Upward

The group of products made from brown camphor oil have advanced further during the past month as the scarcity of the brown camphor oil became more acute. Strange to say the strength also extended to white camphor oil and this advanced in price. There is thought to be no basic reason for the advance in white camphor oil, but just a generally firmer attitude on the part of sellers of camphor products.

Under the monopoly in Japan, the amount of camphor products produced are definitely set by the Government by quarters. Thus the camphor products being produced during the first quarter of the year were determined last December. There will be no change until April 1. The allowed quantity of brown camphor oil has all been sold—hence the high market.

There is every indication that easiness will come to the market as soon as the goods produced during April can be shipped to this country. This should happen about the middle or end of May.

Meanwhile Camphor Oil Sassafrassy is selling at 19c per pound in drums; Camphor Oil White at 13c @ 14c per pound in drums; Sassafrass Oil Artificial at 40c per pound in drums.

Clove Oil in Uncertain Position

Although a feeling of easiness is indicated in many directions about future values of clove oil, there does not appear to be any basic reason why this should be so, and in fact the conditions in the market for the spice make higher prices and continued firmness a distinct probability.

The spice market is much firmer and higher abroad. Also the outlook is for much higher prices. While it is true that every day brings us nearer to the new crop in the Fall, there is still a long time to elapse before the new crop makes its appearance.

Of course much depends upon the outlook for that crop. But it is far too early for any opinions of the size of the crop to be formed, except if the acreage has been materially extended and this is known.

Although the future is uncertain, the immediate future seems pretty well assured and it is not likely that any decline will be recorded during that period.

Citronella Firmness Thought Temporary

The firm condition of the market for Ceylon citronella oil is not thought to be one based upon long period supply and demand, but rather a condition brought about by speculative buying of spot and near-by positions. It is true that consumers have to pay more for their oil at the moment, but it is quite some consolation to know that the market will not continue to climb to dizzy heights, and that it will probably soon return to where it has been. Those who are talking of the firmness of the market and deny that the situation is temporary for the reason that higher quotations are coming from the primary markets, seem to forget that these higher quotations from the primary market are only the result of the heavy buying of these positions by factors here. There will be no fireworks in citronella oil at this time.

Lemon Oil Looks Dangerous

When it is considered that this is the time when lemon oil should be selling at the lowest price of the year, and that it is selling at $5.00 @ $5.10 per pound for the better

Synthetic Aromatics

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Acetophenene, CP, 1 lb bot..lb.	3.50	3.65	3.65	3.50	3.75	3.50
Aldehyde, C 8 (Octyl) 1 lb bot ..lb.	.....	55.00	55.00	55.00	55.00	55.00
C 7, 1 lb bot..lb.	4.50	5.50	5.50	4.50	5.50	4.50
C 9 (Nonyl), 1 lb bot..lb.	.....	140.00	140.00	140.00	140.00	140.00
C 10 (Decyl), 1 lb bot..lb.	.....	48.00	48.00	48.00	48.00	48.00
C 14, 1 lb bot..lb.	22.50	25.00	25.00	22.50	25.00	22.50
C 16, 1 lb bot..lb.	31.00	32.00	32.00	31.00	80.00	31.00
Aubepine, see Anisic Aldehyde						
AMYL ACETATE, pure, 5 gal cans..gal.	4.75	5.50	5.50	4.75	5.50	4.75
Butyrate, 1 lb bot..lb.	1.70	1.75	1.75	1.70	1.90	1.70
Butyrate, 5 lb bot..lb.	.....	1.75	1.75	1.75	1.75	1.75
Cinnamate, 5 lb bot..lb.	9.50	9.75	9.75	9.50	9.75	9.50
Formate, 1 lb bot..lb.	.....	1.90	1.90	1.90	1.90	1.90
Formate, 5 lb bot..lb.	.....	1.75	1.75	1.75	1.75	1.75
Phenyl Acetate, 1 lb bot..lb.	4.50	5.00	5.00	4.50	5.00	4.50
Salicylate, 100 lb chys..lb.	1.25	1.30	1.30	1.25	1.30	1.25
Imported..lb.	2.25	2.50	2.50	2.25	2.50	2.25
Anisic Aldehyde, 1 lb bot..lb.	3.00	3.25	3.25	3.00	3.25	3.00
Benzaldehyde, USP, 40 lb chys ..lb.	.....	.....	.....	.....	.....	.....
50 lb chys..lb.	1.25	1.35	1.35	1.25	1.35	1.25
FFC, 40 lb chys..lb.	1.35	1.45	1.45	1.35	1.45	1.35
Benzoic Ether, see Ethyl Benzoate						
Benzophenone, 1 lb bot..lb.	4.50	5.00	5.00	4.50	5.00	4.50
Benzyl Acetate, 100 lb chys..lb.	.90	1.10	1.10	.90	1.10	.90
Alcohol, 5 lb bot..lb.	1.25	1.35	1.35	1.25	1.35	1.25
Benzoate, 5 lb bot..lb.	1.25	1.35	1.35	1.25	1.35	1.25
BENZYL BENZOATE.....	1.35	1.40	1.40	1.35	1.40	1.35
Medicinal, FFC..lb.	.....	1.40	1.40	1.40	1.40	1.40
Buytrate, CP, 1 lb bot..lb.	9.25	9.50	9.50	9.25	9.50	9.25
Cinnamate, 1 lb bot..lb.	9.25	9.50	9.50	9.25	9.50	9.25
Formate, 1 lb bot..lb.	3.15	3.25	3.25	3.15	3.75	3.15
Propionate, 1 lb bot..lb.	3.60	3.75	3.75	3.60	3.75	3.60
Succinate, 1 lb bot..lb.	5.25	5.50	5.50	5.25	5.50	5.25
Valerate, 5 lb bot..lb.	3.00	3.25	3.25	3.00	3.25	3.00
Bornyl Acetate, 1 lb bot..lb.	2.90	3.00	3.00	2.90	3.25	2.90
Bromstyrol, 25 lb cases..lb.	4.10	4.25	4.25	4.10	5.00	4.10
Butyl Anthranilate dom, 1 lb bot..lb.						
Butyric Ether, see Ethyl Butyrate						
Cinnamic Acid, 5 lb cans..lb.	3.25	3.50	3.50	3.25	3.50	3.25
Alcohol liquid, 1 lb bot..lb.	3.25	3.35	3.35	3.25	3.50	3.25
Crystallizable..lb.	7.00	8.00	8.00	7.00	8.00	7.00
Aldehyde..lb.	2.25	2.50	2.50	2.25	2.50	2.25
Imported, 1 lb bot..lb.	7.75	9.00	9.00	7.75	9.00	7.75
Citronelyl Acetate, 1 lb bot..lb.	7.75	8.00	8.00	7.75	8.00	7.75
Coumarin, 25 lb cans..lb.	3.50	4.00	4.00	3.50	4.00	3.50
DECYL ALCOHOL..lb.	25.00	28.00	28.00	25.00	28.00	25.00
Diethyl Phthlate see Chemicals						
Diphenyloxide, 25 lb tins..lb.	1.00	1.15	1.15	1.00	1.15	1.00
Diphenyl Methane..lb.	1.50	1.75	1.75	1.50	1.75	1.50
Duodecyl Alcohol..lb.	20.00	22.00	22.00	20.00	22.00	20.00
Ethyl Acetate, pure, 5 lb bot..lb.	.45	.50	.50	.45	.50	.45
Benzoate, 5 lb bot..lb.	1.50	1.75	1.75	1.50	1.75	1.50
Ethyl Butyrate, 5 lb bot..lb.	1.80	2.00	2.00	1.80	2.00	1.80
Caproate, 1 lb bot..lb.	3.25	3.50	3.50	3.25	3.50	3.25
Cinnamate, 1 lb bot..lb.	4.00	4.50	4.50	4.00	4.50	4.00
Formate, 5 lb bot..lb.	1.00	1.25	1.25	1.00	1.25	1.00
Methyl Paracresol, 1 lb bot ..lb.	3.25	3.50	3.50	3.25	3.50	3.25
Phenyl Acetate, 5 lb bot..lb.	3.75	4.00	4.00	3.75	4.00	3.75
Valerate, 5 lb bot..lb.	.....	3.75	3.75	3.75	3.75	3.75
Salicylate, 5 lb bot..lb.	1.95	2.00	2.00	1.95	2.10	1.95
Formic Ether see Ethyl Formate						
Geranyl Acetate, 1 lb bot..lb.	3.20	3.25	3.25	3.20	3.25	3.20
Butyrate, 1 lb bot..lb.	13.00	13.50	13.50	13.00	13.50	13.00
Formate, 1 lb bot..lb.	12.00	12.50	12.50	12.00	12.50	12.00
Glyco Ester..lb.	.90	1.00	1.00	.90	1.00	.90
Heliotropin, 100-10 lbs..lb.	1.65	1.75	1.75	1.65	1.75	1.65
Imported..lb.	1.95	2.05	2.05	1.95	2.05	1.95
Hydroxycitronellal, 1 lb..lb.	5.50	7.50	7.50	5.50	7.50	5.50
Indol, CP, 1 oz bot..oz.	2.90	3.00	3.00	2.90	4.50	2.90
IONONE, 1 lb bot 100%..lb.	5.00	6.00	6.00	5.00	7.00	5.00
Alpha..lb.	4.80	5.00	5.20	4.80	6.25	4.75
Beta..lb.	5.70	5.75	5.75	5.70	7.25	5.50
Methyl..lb.	5.75	6.00	6.00	5.75	7.25	5.75
Iso Borneol..lb.	2.15	2.25	2.25	2.15	2.25	2.15
Iso Bornyl Acetate..lb.	2.80	3.00	3.00	2.80	3.00	2.80
Iso-Butyl Benzoate, 5 lb bot..lb.	2.75	3.00	3.00	2.75	3.00	2.75
Iso-Safrol, 1 lb bot imp..lb.	1.65	1.75	1.75	1.65	1.75	1.65
Domestic, 5 lb bot..lb.	3.50	3.75	3.75	3.50	3.75	2.50
Lynalyl Acetate, 1 lb bot..lb.	3.25	4.25	4.25	3.25	4.50	3.25
Benzoate, 1 lb bot..lb.	13.00	14.00	14.00	13.00	14.00	13.00
Formate, 5 lb bot..lb.	10.50	12.00	12.00	10.50	12.00	10.50
METHYL ACETOPHENONE ..lb.	3.35	3.50	3.50	3.35	3.75	3.35
Anthranilate, 1 lb bot..lb.	2.40	2.45	2.45	2.40	2.45	2.40
Imported..lb.	2.70	2.75	2.75	2.70	2.75	2.70
Anthranilic Acid..lb.	11.75	12.00	12.00	11.75	12.00	11.75
Benzoate, 5 lb bot imp..lb.	1.75	1.85	1.85	1.75	2.00	1.75
Domestic, 5 lb bot..lb.	1.75	2.00	2.00	1.75	2.00	1.75
Cinnamate, 1 lb bot..lb.	3.75	4.25	4.25	3.75	4.25	3.75
Heptenone, 1 lb bot..lb	8.50	9.00	9.00	8.50	9.00	8.50
Paracresol, 1 lb bot..lb	4.50	8.00	8.00	4.50	8.00	4.50
Phenylacetate, 5 lb bot..lb	3.75	4.00	4.00	3.75	4.00	3.75
Salicylate, USP, 500 lb dr..lb.	.....	.40	.40	.40	.40	.40
50 lb cases..lb.	.....	.42	.42	.42	.42	.42
Mirbane, rect 1,000 lb drs..lb.	.12	.13	.13	.12	.13	.12

PERFUMING PROBLEMS

¶ Few problems connected with the manufacture and sale of cosmetics are of greater importance than those arising in the search for attractive and popular odors, suitably adapted to the mediums in which they are to be used. Not only does the perfume chosen exert a compelling influence on the sale of the product but it must be expertly compounded to avoid the dangerous possibilities of discoloration and alteration or disappearance of odor while the package remains in storage or on the dealers' shelves.

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¶ Our facilities are at the disposal of the American cosmetic industry and there are few perfuming needs for which we cannot supply suitable materials.

UNGERER & CO.

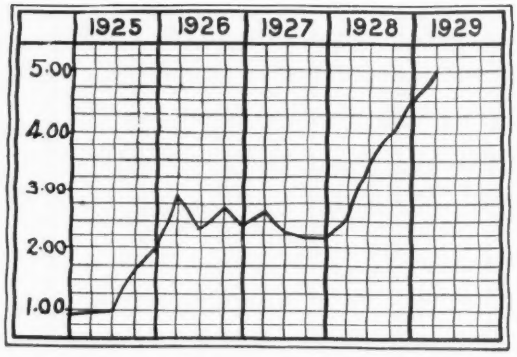
NEW YORK

Essential Oils

{ Monthly Review }

brands with a possibility of buying down to $4.20 for the lower priced brands, against a price this time last year of $2.55 (which was thought very high), one can easily gather the state of mind of every one concerned with the oil.

The heavy consuming season is just over the horizon, the prices for oil are based upon the high prices of the fruit. Because the fruit has been high, the oil pressers have not been anxious to buy the fruit and press high



Lemon Oil Prices. Dollars per pound.

priced oil as the market might later sag. Therefore, it is more than likely that there is not much oil in the hands of the pressers.

If heavy buying arrives there is no doubt but that the Italian pressers will take advantage of it by forcing prices as high as the market will stand, and if consumers are in need of lemon oil the market will stand most anything. Covering a goodly portion of requirements at this time looks like a very wise move.

Orange Oil Again Skyrockets

The sharp and spectacular rise of orange oil during the past month harkens back to a year ago. It was in late March and early April of 1928 that orange oil rose to the dizzy heights of $10.00 @ $11.00 per pound. Now the same thing might easily happen again. In fact the prices to-day are above where they were when the spectacular rise of 1928 started.

The heavy consuming demand is just around the corner. All the supplying countries, (Italy, West Indies, U. S.) quote firm prices well in line with the present spot market. No real weakness is apparent anywhere.

There is, however, the feeling prevalent that such conditions might have no basically firm foundation and that the oil might easily come through in large quantities at any time that the producing countries decide to unload. But there remains the fact that the influenza epidemic caused a heavy consumption of the fruit and kept fruit prices high. Pressers must have been hesitant about buying fruit to press oil at the extremely high prices and it is very doubtful that there is much oil pressed to hang over the market.

Also there is the fact that a rise occurred last year and this fact is known to the producing countries and to the speculators. If the buyers paid $10.00 per pound last year without hesitation they would pay it again and probably they would pay more. So there is every reason to expect that if the oil gets into certain hands there will be no limit to where the market might go during the late Spring and early summer months.

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Musk Ambrette 1 lb cans...lb	6.50	6.75	6.50	6.75	6.50
Ketone 1 lb cans.....lb	8.00	8.15	8.00	8.15	8.00
Xylene 5 lb cans.....lb.	2.25	2.35	2.25	2.35	2.25
Nerolin 1 lb cans.....lb.	1.35	1.40	1.35	1.50	1.35
Octyl Alcohol 1 lb bot.....lb.	30.00	32.00	30.00	32.00	30.00
Oenanthic Ether lb bot....lb.	1.90	2.00	1.90	2.00	1.90
Paracresol Methyl Ether....lb.	6.50	6.75	6.50	6.75	6.50
Paracresyl Acetate.....lb.	5.50	5.75	5.50	5.75	5.50
Para Cymene Refd 110 gal dr ....gal.	2.25	2.50	2.25	2.50	2.25
PHENYLACETALDEHYDE					
50% 1 lb bot.....lb.	4.75	5.00	4.75	7.50	4.75
Imported 50%.....lb.	4.75	5.00	4.75	6.50	4.75
100%.....lb.	8.00	8.25	8.00	8.25	8.00
Phenylacetic Acid 1 lb bot..lb.	3.00	3.25	3.00	3.25	3.00
Phenyl Diacetate 1 oz bot...oz.	3.00	3.25	3.00	3.25	3.00
1 lb bot.....lb.	8.00	10.00	8.00	10.00	8.00
Imported.....lb.	7.00	7.75	7.00	7.75	7.00
Phenylethyl Alcohol 1 lb bot.lb.	4.50	4.75	4.50	4.75	4.50
Phenyl Ethyl Acetate.....lb.	8.25	8.75	8.25	8.75	8.25
Butyrate 1 lb bot.....lb.	15.00	16.00	15.00	16.00	15.00
Formate, 1 lb bot.....lb.	19.00	21.00	19.00	21.00	19.00
Propionate, 1 lb bot.....lb.	16.00	18.00	16.00	18.00	16.00
Valerate, 1 lb bot.....lb.	19.00	20.00	19.00	20.00	19.00
Phenylpropylalcohol, 1 lb bot .....lb.	12.00	12.50	12.00	16.00	12.00
Skatol, 1 oz bot.....lb.	4.50	7.00	4.50	7.00	4.50
Terpinyl Acetate, 25 lb cans..lb.	.75	.80	.75	.80	.75
Imported, 25 lb cans.....	.85	.90	.85	.90	.85
TERPINEOL, CP, 1000 lb drs .....lb.	.33	.35	.33	.35	.33
50 lb cans.....lb.	.37	.39	.37	.39	.37
Absolute, 25 lb cans.....lb.	.48	.50	.48	.50	.48
Imported, 25 lb cans...lb.	.58	.60	.58	.60	.58
Vanillin, USP, 25 lb tins....lb.	.....	7.00	7.00	7.50	7.00
1 lb cans.....lb.	.....	7.15	7.15	7.70	7.15
Second Hands.....lb.	.....	6.75	6.75	6.75	6.75
Valerianic Ether see Ethyl Valerate.....					
Yara Yara, 1 lb cans.....lb.	1.50	1.60	1.60	1.50	1.60	1.50

Essential Oils

Almond Bitter, USP, 5 lb bot lb.	2.70	2.80	2.80	2.70	2.80	2.70
Bitter, ffPA, 5 lb bot.....lb.	3.00	3.10	3.10	3.00	3.25	3.00
Sweet, 56 lb cans.....lb.	.....	.82	.85	.82	.85	.75
Amber crude, 25 lb tins.....lb.	.33	.35	.35	.33	.35	.33
Rectified, 25 lb tins.....lb.	.52	.55	.55	.52	.55	.52
Angelica Root, 1 lb bot....lb.	22.00	24.00	24.00	22.00	28.50	16.00
Anise Tech, 400 lb drums...lb.	.55	.57	.58	.55	.58	.54
USP, 60 lb cans.....lb.	.58	.61	.61	.58	.61	.57
Apricot Kernel, 50 lb cans...lb.	.44	.46	.46	.44	.50	.44
Bay, 25 lb tins N. F. V., 50.55% Phenol.....lb.	2.40	3.00	3.00	2.40	3.00	1.90
Terpeneless.....lb.	5.80	6.00	6.00	5.80	6.00	5.80
BERGAMOT, 25 lb coppers..lb.	5.00	5.35	5.35	5.00	6.10	4.85
Terpeneless.....lb.	14.00	18.00	18.00	14.00	18.00	14.00
Artificial, 25 lb cans.....lb.	2.50	3.25	3.25	2.50	3.25	2.50
Birch, Sweet, Northern, 25 lb tins.....lb.	3.75	4.00	4.00	3.75	4.00	3.75
Southern, 25 lb tins.....lb.	.....	1.95	1.95	1.95	1.95	1.95
Birch Tar, rect., 5 lb bot.....lb.	.50	.55	.55	.50	.55	.50
Crude, 50 lb tins.....lb.	.12	.13	.13	.12	.13	.12
Bois de Rose, tins..... Brazillian.....lb.	1.60	1.70	1.70	1.60	2.00	1.80
Cayenne, tins.....lb.	2.10	2.35	2.35	2.10	2.60	2.05
Cade, 25 lb cans.....lb.	.25	.27	.27	.25	.27	.25
Cajuput, native, 50 lb tins..lb.	.70	.75	.75	.70	.75	.70
Calamus, 5 lb bot.....lb.	3.40	3.50	3.50	3.40	3.50	3.40
Camphor Sassa, 1000 lb drs..lb.	.18	.19	.19	.14½	.15½	.14½
White, 400 lb drs.....lb.	.12	.14	.14	.10½	.12½	.10½
Cans, 50 lbs.....lb.	.15	.16	.16	.14	.15	.14
CANANGA, Native 25 lb tins .....lb.	2.90	3.15	3.25	2.90	3.50	3.00
Rectified, 25 lb tins.....lb.	3.40	3.50	3.50	3.40	4.00	3.40
Caraway, USP.....lb.	1.65	1.75	1.75	1.65	1.85	1.65
Cardamon, NF, 1 lb bot.....lb.	25.00	38.00	38.00	25.00	38.00	25.00
Cascarilla, USP, 1 lb bot.....lb.	50.00	64.00	64.00	50.00	64.00	50.00
Cassia, 80-85%, 400 lb drs..lb.	.....	Nom.	.....	.....	1.45	1.30
Redist, USP, 50 lb cans...lb.	.....	1.80	2.10	1.80	3.25	1.70
Cedar Leaf, 50 lb tins.....lb.	.95	1.05	1.05	.95	1.35	.90
Cedar Wood, light, 1000 lb drs .....lb.	.26	.28	.28	.26	.29	.24
Celery, 1 lb bot.....lb.	.....	7.75	7.75	7.75	8.50	7.25
Chaulmoogra, USP 80 lb cases lb	.....	1.50	1.50	1.20	1.20	1.20
Cinnamon Ceylon, 1 lb bot...lb.	9.75	13.00	13.00	9.75	13.00	9.75
Leaf, 5 lb bot.....lb.	1.60	1.75	1.75	1.60	1.75	1.60
CITRONELLA Ceylon, 1000 lb drs.....lb.	.45	.48	.48	.44	.56	.33
50 lb tins.....lb.	.47	.49	.49	.46	.58	.35
Java, 400 lb drs.....lb.	.49	.51	.51	.49	.51	.40
50 lb tins.....lb.	.52	.54	.54	.52	.54	.43
Cloves, USP, 50 lb cans.....lb.	2.65	2.70	2.70	2.65	2.65	1.25
6 lb bot.....lb.	2.80	2.90	2.90	2.80	2.75	1.35
Copaiba.....lb.	.....	.80	.80	.80	.80	.65
Coriander, USP, 10 lb bots..lb.	.....	9.25	11.25	9.25	14.00	10.50
Croton USP, 25 lb tins.....lb.	.90	.95	.95	.90	.95	.90
Cubebs, USP, 5 lb bot.....lb.	2.90	3.00	3.00	2.90	3.45	2.90
Cumin, 1 lb bot.....lb.	.....	3.75	3.75	3.75	3.75	3.75
Dill, 25 lb cans.....lb.	3.75	3.85	3.85	3.75	4.25	3.75
Erigeron, 20 lb tins.....lb.	1.80	1.90	1.90	1.80	2.50	1.80
EUCALPYTUS Austl, USP, 56 lb cans, cases.....lb.	.55	.56	.60	.55	.60	.59
500 lb drs.....lb.	.54	.55	.59	.54	.59	.58

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GIVAUDAN SYNTHETICS DELAWANNA

[Monthly Review]

Peppermint Oil Weakens

The first signs of weakness in peppermint oil so far this year occurred during the past month. Whether the appearance of green buds caused the farmer to turn anxious about the oil stored in the barn, or whether some holders needed extra cash to meet interest charges, does not appear in the reports, but the fact is that oil is available on spot at $3.05 @ $3.20 per pound as to seller and that still lower prices have been done.

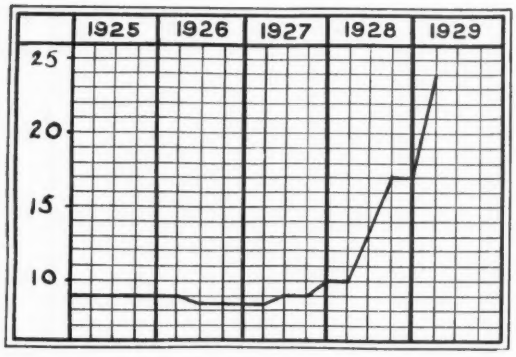
Reports of the size of the crop for this season have not been forthcoming freely both because dealers here have not been anxiously seeking information as the market presented no problem, and also because the producers were not over-anxious to publish the facts of a large crop without pressure.

The size of the peppermint crop this year is admittedly equal to or above that of last year. The reason why it is probably larger than that of last year lies in the fact that California was added to the list of producing states during the year coming in with a production of probably 75,000 to 100,000 pounds of oil.

Orris Concrete Follows the Root

The continued and consistent rise in orris root has naturally been reflected in the market for orris concrete which has just about doubled in price. Any further advances in the root will probably bring like advances in the oil.

The cause of the high prices for the root lies in conditions in Italy where all the root is produced. The Government there has caused the farmers to give up planting orris root



Orris root Prices Cents per pound.

which a year ago brought only 9c per pound on spot in this country, and for which the Italians received only about 5 or 6c per pound in their country. They have been told to plant wheat or other food stuffs in its place.

This has caused orris root to advance until to-day it is priced at 22c @ 24c per pound as to grade in this country, and these prices represent values below present import prices.

There is practically no possibility of any decline setting in as the acreage planted is not being increased, and supplies are very scarce. There is more likelihood of further advances than anything else.

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Fennel, USP, 25 lb tins.....lb.	.80	.85	.85	.80	.85	.80
Geranium African, 25 lb tins..lb.	3.90	4.25	4.25	3.85	4.25	3.00
Bourbon, 28 lb tins.....lb.	4.25	4.65	4.90	4.25	4.90	3.00
Turkish, 28 lb tins.....lb.	3.00	3.35	3.35	3.00	3.35	2.45
Ginger, 1 lb bot.....lb.	6.00	6.25	6.25	6.00	6.75	4.80
Gingergrass, 28 lb tins.....lb.	2.50	2.70	2.70	2.50	2.70	2.50
Hemlock, 25 lb tins.....lb.	1.05	1.10	1.10	1.05	1.10	1.00
Juniper Berries, USP, 25 lb tins .....lb.	2.05	2.10	2.15	2.05	3.75	2.10
Wood, 50 lb tins.....lb.	.50	.60	.60	.50	.60	.50
LAVENDER, USP, 28 lb tins .....lb.	3.25	3.40	3.40	3.25	3.85	3.00
Spike Spanish, 50 lb cans..lb.	.90	.95	.95	.90	1.05	.90
Lemon Ital, 25 lb cans.....lb.	5.00	5.10	4.60	4.35	4.85	2.30
California 35 lb cbys....lb.	.....	4.10	4.10	4.10	4.35	1.85
Lemongrass, native, 50 lb cans .....lb.	.81	.83	.83	.81	.95	.81
Limes, expressed, 25 lb tins..lb.	20.00	23.00	23.00	20.00	25.00	9.25
Distilled, 25 lb tins.....lb.	.....	8.00	8.00	7.75	8.50	6.00
Linaloe Mex., 70 lb cases....lb.	2.20	2.25	2.25	2.20	2.45	1.90
Mace, distilled, 50 lb tins....lb	1.75	1.80	1.80	1.75	1.85	1.60
Mandarin, 25 lb cases.....lb.	11.00	11.50	11.50	11.00	11.50	7.50
Mirbane, ref Aromatic Chemicals.....						
MUSTARD, USP, 1 lb bots..lb.	9.50	10.00	10.00	9.50	10.00	9.50
Artif, USP, 5 lb bot.....lb.	1.60	1.70	1.70	1.60	2.00	1.60
Neroli Bigarade, ¼ & ½ & 1 lb bot .....lb.	75.00	140.00	140.00	75.00	140.00	75.00
Petale, 1 lb bot.....lb.	160.00	170.00	170.00	160.00	170.00	160.00
Artificial, 1 lb bot.....lb.	5.00	15.00	15.00	5.00	15.00	5.00
Nutmeg, USP, 50 lb tins....lb	1.75	1.80	1.80	1.75	1.80	1.60
ORANGE BITTER, 25 lb tins .....lb	.650	6.75	6.75	5.00	8.75	2.70
Sweet W Ind, 25 lb tins..lb	6.25	6.50	6.50	4.95	8.75	2.60
Italian, 25 lb cop.....lb.	6.50	7.35	7.35	5.10	9.00	2.80
American, Cold pressed 25 lb tins.....lb.	7.25	7.40	7.40	4.90	8.75	3.50
Distilled, 25 lb tins.....lb.	.....	5.25	5.25	4.50	7.75	2.20
Spanish, 25 lb tins.....lb.	7.00	7.15	7.15	5.25	8.75	3.00
Oil Orris, concrete.....oz.	6.00	6.25	6.25	2.50	4.90	2.50
Origanum, 50 lb cans tech...lb.	.28	.30	.30	.28	.30	.28
Parsley, 1 lb bot.....lb.	9.00	9.25	9.25	8.00	8.25	6.50
Patchouli, 5 lb bot.....lb.	6.75	7.00	7.00	6.75	13.00	7.25
Pennyroyal, dom, 25 lb tins..lb.	1.55	2.10	2.10	1.55	1.90	1.55
Imported, 25 lb tins.....lb.	.....	1.20	1.20	1.20	1.55	1.20
Peppermint, nat. 60 lb cases lb.	3.05	3.20	3.30	3.05	3.55	3.10
Redis, USP, 60 lb cs.....lb.	3.40	3.50	3.55	3.40	3.65	3.40
Petit Grain S A., 25 lb tins. lb.	1.90	2.00	2.00	1.90	2.10	1.50
French, 1 lb bot.....lb.	6.25	6.50	6.50	6.25	6.50	6.25
Italian, 25 lb tins.....lb.	2.20	2.30	2.30	2.20	2.30	2.20
Pimento, 25 lb tins.....lb.	.....	2.75	2.25	2.75	3.25	2.55
Pineedle Siberian, cans.....lb.	.60	.65	.65	.60	.85	.65
Pinus, Sylvestris, 25 lb tins. lb.	1.90	2.00	2.00	1.90	2.00	1.90
Pumilio, USP, 25 lb tins..lb.	2.85	2.95	2.95	2.85	2.95	2.85
Rose Fr, 8, 16, & 32 oz pkgs..lb.	12.00	15.00	15.00	12.00	15.00	12.00
Bulg, 8, 10 & 32 oz pkgs..lb.	11.50	12.00	12.00	11.50	13.00	10.25
Rosemary, USP, 27½ lb tins..lb.	.....	.56	.56	.47½	.56	.47½
1000 lb drums.....lb.	.....	.50	.50	.42½	.45	.42½
Tech, 25½ lb tins.....lb.	.....	.40	.40	.40	.34	.34
Rue, 1 lb bot.....lb.	3.15	3.25	3.25	3.15	3.25	3.15
SANDALWOOD, E Ind, USP, 100 lb case.....lb.	8.50	9.00	9.00	7.45	7.50	7.05
W Indian (Amayris), 25 lb tins.....lb.	2.25	2.35	2.35	2.25	2.65	2.30
Sassafras, USP, 50 lb cans...lb.	.78	.80	.80	.78	.85	.75
Artificial, 1000 lb drs, 60 lb cans.....lb.	.34	.38	.38	.26	.28	.26
Safrol, cans.....lb	.41	.42	.42	.28	.29	.28
Savin, 50 lb tins.....lb	1.65	1.80	1.90	1.65	1.90	1.70
SPEARMINT, USP, 50 lb tins .....lb	4.05	4.25	4.40	4.05	4.55	4.10
Spruce, 50 lb tins.....lb	1.05	1.10	1.10	1.05	1.10	1.00
Tansy, American, 25 lb tins..lb.	3.75	4.00	4.00	3.75	4.50	3.75
Tar, 50 gal bbls.....lb.	.25	.30	.30	.25	.30	.25
USP, 50 gal bbls.....lb.	.75	1.50	1.50	.75	1.50	.75
Thyme, red, NF, 25 lb tins..lb.	.78	.80	.90	.78	.90	.80
White, NF, 25 lb tins.....lb.	.83	.85	.90	.83	.90	.85
Tech, 110 lb drums.....lb.	.60	.70	.70	.60	.70	.60
Turpentine, USP, rect cbys..lb.	.27	.30	.30	.27	.30	.27
Vetivert Bourbon, 10 bot....lb.	6.25	6.50	6.50	6.25	6.75	5.85
Indian, 1 lb bot.....lb.	25.00	38.00	38.00	25.00	38.00	25.00
Java, 1 lb bot.....lb.	15.00	16.00	16.00	15.00	16.00	15.00
Wine, heavy, 1 lb bot.....lb.	1.65	1.75	1.75	1.65	1.75	1.65
WINTERGREEN Gaultheria, true, 25 lb tin.....lb.	8.00	10.00	10.00	8.00	10.00	8.00
Southern, 25 lb tins....lb.	3.75	4.00	4.00	3.75	4.00	3.75
Synthetic see Methyl salicylate.....						
Wormwood, dom, 25 lb tins..lb.	30.00	34.00	35.00	30.00	35.00	14.00
Wormseed, Balt, 25 lb tins...lb.	1.80	1.90	1.90	1.80	3.45	1.90
Ylang Ylang Bourbon, 10 lb tins No. 1.....lb.	9.50	9.75	9.75	9.50	10.50	8.50
10 lb tins No. 2.....lb.	8.25	8.50	8.50	8.25	8.50	6.75
Manila, 1 lb bot.....lb.	30.00	40.00	40.00	30.00	32.00	30.00

Oleoresins

Aspidum, USP, bot and tins..lb.	.....	1.35	1.45	1.35	2.10	1.50
Capsicum, USP, bot and tins.lb.	3.50	4.25	4.25	3.50	4.25	3.50
Cubeb, USP, bot and tins....lb.	3.00	3.25	3.25	3.00	3.25	3.00
Ginger bot and tins.....lb.	2.85	3.35	3.35	2.85	3.35	2.25
Malefern see Aspidum.....						

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Drugs and Spices

{ Monthly Review }

Sandalwood Advances Further

"In all my experience I have never seen sandalwood oil in as tight a position as it is in today," remarked one of the leaders of the essential trade recently. "We do not know the real reason, but only what we are told. Oil is being bought in foreign markets by most of the dealers in order that contracts with consumers might be filled. This oil is costing us well above what we are receiving for it, and we have been compelled to advance our prices still further to $8.50 @ $9.00 per pound."

And this well describes the situation, except to say that at least one of the leading houses is now offering the West Australian oil at $5.40 per pound. This oil is sold only on filing of an affadavit and posting of a bond that the oil will not go into medicinal channels where only the official U. S. P. East Indian sandalwood oil should be used. The Government restrictions surrounding the importation and sale of the West Indian oil has caused dealers to be loath to handle it, but under present conditions they feel they must handle it.

The feeling among dealers is that the East Indian oil is being forced up in price merely to establish higher selling levels. They feel that real efforts should be made at this time to have the Australian oil included in the U. S. P. so that an attempt on the part of the Mysore Government to force an abnormally high market could never be carried to a successful conclusion.

The Ginseng Market

Market possibilities and approved methods of growing ginseng are given in a recent revision of "Farmers' Bulletin 11-84-F, "Ginseng Culture", by Dr. W. W. Stockberger, principal physiologist in charge of Drug, Poisonous, and Oil Plants in the Department of Agriculture.

The ginseng industry, says Dr. Stockberger, still suffers from the disrepute into which it was brought through exaggerated claims by dealers. The future success of the cultivated ginseng in North America will be determined to a great extent by the attitude of the growers, he says.

Ginseng has long been valued by the Chinese for medicinal use and it is on this Oriental market that American growers must depend, says the bulletin, as the plan has little value here or in other countries outside of China. It is consumed in negligible quantities even by the Chinese in this country.

Although exports of ginseng are now considerably smaller than in some previous years, the prices paid for the root at present, are relatively high, says the author, and a continuance of the demand for American ginseng may reasonably be expected. The annual exports for the last ten years have averaged more than $2,000,000 in value, and prices during the same period have ranged from $1 to $13 a pound for the cultivated roots, with a somewhat higher price for the wild ginseng. Well managed plantings are estimated to yield about a ton to the acre on the average although much larger yields are frequently reported.

There is always a ready sale for the cultivated roots, which closely resemble the wild in quality and condition, and prudent growers will not fail to adopt the wild root as the standard of future production, says Dr. Stockberger. Elimination of the poorer grades of cultivated American ginseng now found on the markets, he says, would tend to insure more uniform prices for the root and lessen the danger of depressing the market.

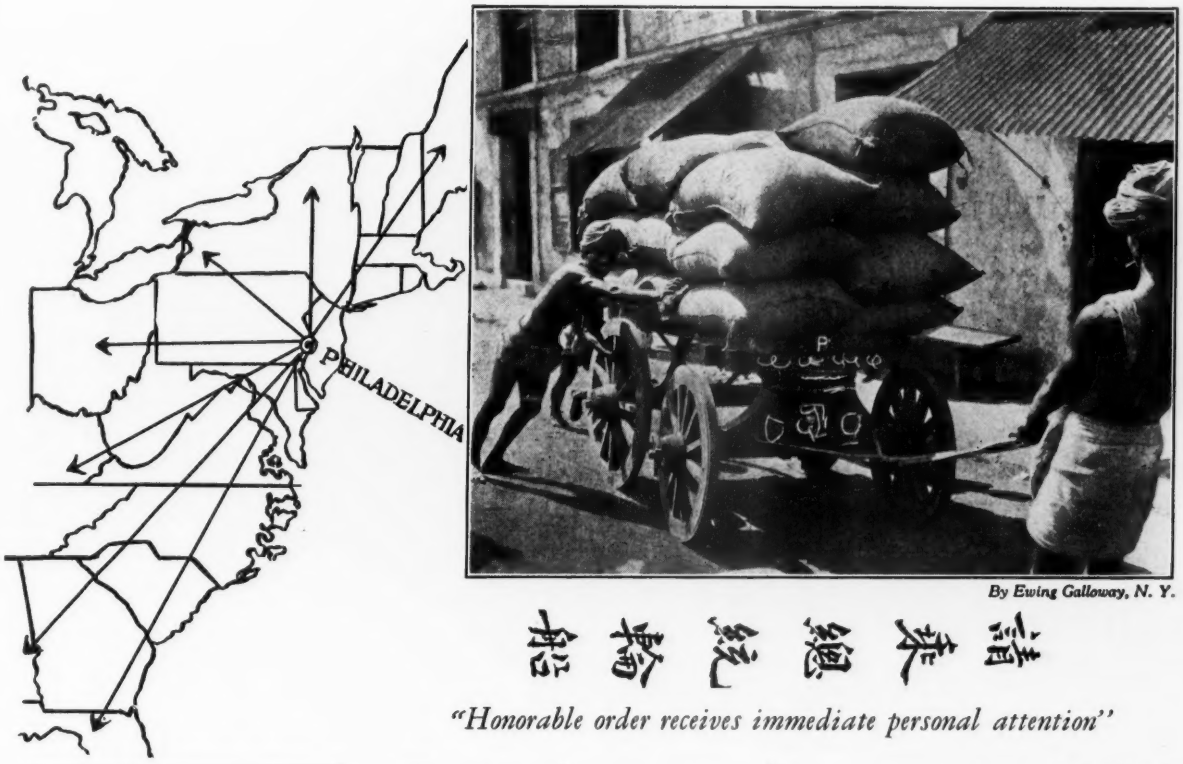
	Current Market	1929 High	1929 Low	1928 High	1928 Low
Orris, bot & tins.....lb.	15.00	18.00	15.00	18.00	15.00
Pepper, black, USP, bot & tin.....lb.	.....	9.50	9.50	9.50	.....
Vanilla, bot & tins.....lb.	8.00	8.75	8.75	8.00	8.75	8.00

Perfumer's Sundries

Almond Meal, 25 lb cans....lb.	.20	.21	.21	.20	.21	.20
Amber liquid, 400 lb drs.....lb.	2.20	2.30	2.30	2.20	2.30	2.20
Ambergris, Black, boxes.....oz.	14.00	15.00	15.00	14.00	15.00	14.00
Gray boxes.....oz.	32.00	36.00	36.00	32.00	36.00	32.00
BALSAM COPAIBA Para, 80 lb cases.....lb.	.30	.32	.34	.30	.49	.32
South American, USP, 80 lb cases.....lb.	.33	.35	.37	.33	.52	.35
Peru, 120 lb cases.....lb.	1.95	2.00	2.00	1.75	1.80	1.65
Tolu, 90 lb cases.....lb.	1.25	1.30	1.30	1.15	1.20	.95
Benzoin Gum, Siam, boxes...lb.	1.20	1.30	1.30	1.20	1.30	1.20
Castoreum, 1 lb bot.....lb.	9.50	10.00	10.00	9.50	10.00	9.50
Chalk, Precip, 1 gr, 175 bbls.lb.	.04½	.05	.05	.04½	.05	.04½
Cherry Laurel Water, 24 ltr cby.....lb.	4.10	4.60	4.60	4.10	5.60	4.10
Civet, Abyssin, horns.....oz.	2.10	3.00	3.00	2.10	3.00	2.10
Labdanum, 5 lb bot.....lb.	5.50	6.00	6.00	5.50	6.00	5.50
Lanolin, hydrous, 350 lb bbls.....lb.	.15	.16	.16	.15	.16	.15
Anhydrous, 350 lb bbls....lb.	.16	.17	.17	.16	.17	.16
Musk Pods Cabardine, tins..lb.	.....	.....	.....	.....	.....	.....
Musk Tonquin, tins, Pods...oz.	24.00	26.00	26.00	24.00	26.00	24.00
Grains Cabardine, tins....oz.	.....	.....	.....	.....	.....	.....
Tonquin, tins, Grained..oz.	28.00	34.00	34.00	28.00	34.00	28.00
Synthetic See Aromatic Chemical.....						
PETROLATUM, snow white, 350 lb bbls.....lb.	.12½	.13¼	.13¼	.12½	.13¼	.12½
Light Amber, 350 lb bbls. lb.	.12½	.13	.13	.12½	.13	.12½
Rice Starch, 140 lb bags....lb.	.09	.10	.10	.09	.10	.09
Rose Water, 24 ltr cbys.. cby.	5.00	5.50	5.50	5.00	5.50	5.00
Sandalwood, pwd bags.....lb.	.22½	.40	.40	.22½	.40	.22½
Saponin, 5 lb tins.....lb.	1.15	1.30	1.30	1.15	1.30	1.15
Talc, Italian, 220 lb bags...ton.	60.00	80.00	80.00	60.00	80.00	60.00
French, 220 lb bags.....ton.	40.00	45.00	45.00	40.00	45.00	40.00
Aconite Root, USP, bags....lb.	.21	.22	.20	.21	.27	.19
Agar Agar, domestic, No. 1, 200 lb.....lb.	1.40	1.45	1.45	1.40	1.40	.96
Almonds Meal.....lb.	.15	.30	.30	.15	.30	.15
Aletris Root, bags.....lb.	.37	.38	.38	.36	.42	.36
Alkanet Root, bags.....lb.	.11	.12	.12	.11	.12	.10

Drugs and Spices

ALOES, Cape, 400 lb cases. lb.	.17	.18	.18	.17	.18	.09½
Curacao, 100 lb cases.....lb.	.19	.20	.20	.19	.20	.12
Socotrine, Whole, 300 lb cs lb.	.45	.50	.50	.45	.45	.35
Althea Root, bags.....lb.	.20	.22	.22	.20	.22	.20
Cut cases.....lb.	.33	.40	.40	.33	.40	.33
Angelica Root, bags.....lb.	.27	.28	.28	.27	.25	.18
Angostura Bark, bags.....lb.	.19	.20	.20	.19	.18	.18
Anise Star case.....lb.	.15	.16	.19	.15	.26½	.14
Spanish, bags.....lb.	.18	.19	.19	.18	.20	.13
ARABIC GUM, White, No. 1, 100 lb bags.....lb.	.25	.27	.27½	.22	.27½	.22
Seconds, 200 lb bags.....lb.	.22	.24	.24	.16	.21	.16
Sorts, Amber, 220 lb bags..lb.	.15	.16	.16	.11	.11½	.10½
Powd, USP, 300 lb bbls....lb.	.23	.25	.25	.17½	.21	.17½
Areca Nuts, 100 lb bbls.....lb.	.10	.11	.11	.10	.12½	.10
Powd, 100 lb bbls.....lb.	.14	.15	.15	.14	.21	.15
Arnica Flowers, bales.....lb.	.80	.85	1.00	.80	1.50	.95
Root, bags.....lb.	.35	.36	.36	.35	.45	.35
Arrowroot, St. Vincent, powd bbls.....lb.	.10	.10½	.10½	.10	.10½	.10
Asafoetida, 250 lb cases.....lb.	.23	.26	.28	.23	.31	.25
Powd, 50 lb boxes.....lb.	.50	.54	.54	.50	.68	.50
Balm Gilead Buds, bags....lb.	.35	.40	.40	.35	.40	.31
Balmony Herbs, bales.....lb.	.23	.25	.25	.18	.23	.18
Barberry Bark, of root, bags lb.	.19	.20	.20	.19	.32	.19
Bayberry Bark, bales.....lb.	.12	.13	.13	.12	.18	.12
Wax bbls.....lb.	.29	.32	.32	.29	.32	.29
BELLADONNA LEAVES, bales.....lb.	.18	.20	.20	.18	.23	.17
Root, bags.....lb.	.20	.21	.21	.20	.21	.20
Bees Wax, White, cases.....lb.	.55	.60	.60	.55	.60	.55
Yellow refined cases.....lb.	.41	.42	.42	.41	.42	.41
Berberis Aquafolium Root, bags.....lb.	.10	.11	.11	.10	.13	.10
Beth Root, bags.....lb.	.17	.18	.18	.17	.20	.17
Black Indian Hemp Root, 100 lb bags.....lb.	.18	.19	.19	.18	.20	.18
Blood Root, bags.....lb.	.17½	.18	.18	.17½	.35	.21
Blueflag Root, bags.....lb.	.19	.20	.20	.19	.27	.17
Boldo Leaves, bales.....lb.	.15	.17	.17	.15	.17	.15
Boneset Herb, bales.....lb.	.10	.11	.11	.10	.10	.07½
Borage Flowers, bales.....lb.	.15	.16	.15	.14½	.17	.14½
Broomtop Herb Cut, bales..lb.	.10	.11	.11	.10	.11	.10
Bryonia Root, bags.....lb.	.11	.12	.12	.11	.12	.10½
BUCHU LEAVES Short, 250 lb. bbls.....lb.	.39	.40	.40	.39	.55	.42
Long bales.....lb.	.75	.80	.80	.75	.80	.75
Buckbean Leaves, bales.....lb.	.09	.10	.10	.09	.15	.13
Buckthorn Bark, bags.....lb.	.05	.05½	.05½	.05	.05½	.05
Berries, bags.....lb.	.45	.50	.50	.45	.50	.45
Burdock Root, bags.....lb.	.16	.17	.17	.15	.17	.11
Seed bags.....lb.	.65	.....	.65	.65	...	.65
Burgundy Pitch, 110 stand gross for net.....lb.	.08	.09	.09	.08	.09	.08
Imported.....lb.	.12	.13	.13	.12	.13	.12



By Ewing Galloway, N. Y.

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Asafoetida
Belladonna Leaves
Belladonna Root
Buchu Leaves
Cardamon Seed
Cantharides
Chamomile Flowers
Dandelion Root
Digitalis Leaves
Doggrass Root
Fennel Seed
Foenugreek Seed
Fumigating Pastilles
Gamboge
Gentian Root
Hellebore Root
Henbane Leaves
Henna Leaves
Insect Flowers
Juniper Berries
Lavender Flowers
Licorice Cuttings
Licorice Root 1 lb. & 5 lb. bundles
Orris Root, Florentine
Olive Oil
Quassia
Quince Seed
Rhubarb Root
Sage Leaves
Senna Leaves
Senna Pods
Soap Castile
Soap Bark, Cut
Squill Root
Valerian Root

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Monthly Review

Ergot is Weak on Large Supplies

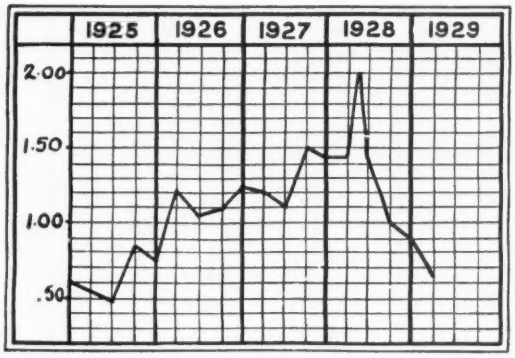
The reason for the easy condition of the ergot market is best explained by reference to the following table of imports tabulated by the Department of Commerce and showing that the quantity of the drug imported during 1928 constitutes a record for all time coming about 500 pounds short of 300,000 pounds.

The report from the Department reads:

"The value of ergot of rye imported for consumption into the United States during the first nine months of 1928 exceeded that of any year during the twenty-year period 1909-1928, inclusive, excepting 1919 and 1920.

"The quantity and value of ergot imported into the United States during the past nineteen years and the first nine months of 1928 are shown in the following table:

Year	*Pounds*	*Value*
1909	135,740	$36,651
1910	181,614	52,911
1911	141,334	75,592
1912	207,138	187,500
1913	223,793	208,364
1914	185,704	102,640
1915	141,915	92,450
1916	123,015	73,893
1917	165,701	80,647
1918	140,474	81,267
1919	171,950	346,707
1920	226,835	789,695
1921	101,890	118,250
1922	225,280	162,165
1923	264,500	90,545
1924	170,410	37,345
1925	154,500	65,850
1926	207,080	156,855
1927	230,020	209,130
1928	299,371	306,988



Ergot prices. Dollars per pound.

"Reports from Consul W. H. McKenney, Vigo, Spain and Consul F. Henry, Barcelona, Spain, state that during the latter part of 1928 little interest was shown by American buyers of ergot in the new Spanish crop, possibly because of the lower prices quoted in the central European markets for German and Russian ergot.

"It is stated that considerable quantities of Spanish ergot are available for shipment if any agreement with the owners can be reached. The shippers do not seem to feel disposed to cut their prices to any appreciable extent, however, and shipments of Spanish ergot are being made

	Current Market		1929 High	1929 Low	1928 High	1928 Low
Calabar Beans, bags lb.	.25	.26	.26	.22	.27	.22
Calamus Root, blchd cases lb.	.45	.47	.52	.45	.50	.35
Unbleached, bags lb.	.06½	.07	.07	.06½	.07	.06½
Calendula Petals, imp bales lb.	1.40	1.45	1.50	1.40	1.75	.85
Calisaya Bark, bales lb.	.21	.22	.22	.21	.23	.20
Powdered, bbls lb.	.26	.27	.27	.26	.32	.18
Canary Seed, South America, bags lb.	.06½	.06½	.06½	.05	.05½	.04½
Dutch, bags lb.	.05½	.06½	.06½	.05½	.06½	.05½
Candelilla Wax, bags lb.	.27	.28	.28	.27	.28	.27
Cannella Alba Bark, bales lb.	.29	.30	.30	.28	.32	.28
Cannabis, U.S.P. lb	.28	.33	.33	.28	.....	.....
Cantharides, Chinese, cases lb.	.50	.55	.55	.50	.72	.50
Powdered, bags lb.	.75	.80	.80	.75	.88	.75
Russian, cases lb.	.54	.55	.55	.54	.70	.54
Powdered, boxes lb.	.70	.75	.75	.70	.80	.68
Caraway Seed, African, bags lb.	.05	.06	.06	.05	.12	.05
Dutch, 11 lb bags lb.	.09¾	.09¾	.11	.09¾	.12	.09½
Cardamon bleached, cases lb.	1.65	1.75	1.75	1.65	2.00	1.50
Decorticated, cases lb.	1.50	1.60	1.60	1.50	1.60	1.25
Cascara Amarga, 150 lb bbls lb.	Nom.	.....	.....	.....	.90	.90
So called bales lb.	.60	.85	.85	.60	.85	.60
CASCARA SAGRADA, 1926 bark lb.	.15	.16	.16	.15	.16	.15
1927 bark lb.	.14	.15	.15	.14	.15	.14
1928 bark lb.	.13	.14	.14	.13	.14	.13
Cascarilla Bark, quills, bales lb.	.90	1.00	1.00	.90	1.00	.90
Siftings, bbls lb.	.65	.....	.65	.65	.65	.65
Cassia Batavia No. 1 bbls lb.	.13½	.13¾	.15	.13¼	.16	.13½
Shortstick, bales lb.	.12	.12¼	.12¼	.11	.13	.11
Batavia No. 3, bales lb.	.09¾	.10	.11	.09¾	.11	.09¾
China Select Rolls, cases lb.	.08¾	.09	.09	.08¾	.13¾	.09
Broken, bales lb.	.09¾	.10	.10	.09¾	.10	.08¾
Saigon, thin lb.	.30	.31	.39	.28	.39	.22
Buds, cases lb.	.19	.20	.20	.19	.19	.18½
Fistula, baskets lb.	.11	.13	.13	.11	.24	.11
Catnip, Herb, bales lb.	.19	.20	.23	.18	.23	.19
Celery Seed, bales lb.	.17	.18	.19	.17	.21	.19
Ceresin Wax, White, bags lb.	.15	.20	.20	.15	.20	.15
Yellow 200 lb. bags lb.	.11	.14	.14	.11	.14	.11
Imp. 100 lb. bags lb.	.25	.38	.38	.25	.38	.25
CHAMOMILE FLOWERS Roman, bales lb.	.45	.50	.50	.45	.50	.18
Hungarian, cases lb.	.23	.24	.26	.23	.24	.15
Charcoal Willow, powd, bbls lb.	.06	.06½	.06½	.06	.06½	.06
Wood, powd, bbls lb.	.04	.05	.05	.04	.05	.04
Leaves bales lb.	.05	.05½	.05½	.05	.06½	.05
Chicle Gum, lb bbls lb.	.58	.75	.75	.58	.75	.58
Chiretta, bales lb.	.28	.30	.30	.28	.30	.25
Cinnamon, Ceylon, No. 1, bales lb.	.60	.62	.62	.60	.62	.60
No. 2 bales bend lb.	.50	.51	.51	.50	.61	.55
No. 3 bales lb.	.55¼	.56	.56	.55¼	.56	.55½
Clover Tops, Red, bags lb.	.11	.12	.12	.11	.12	.10
Cloves Zanzibar, 135 lb bbl lb.	.37	.38	.38	.35	.38	.18
Cochineal, Black lb.	.69	.....	.69	.69	.69	.69
Silver lb.	.85	.....	.85	.85	.85	.85
Cohosh Root, Black, bags lb.	.08	.09	.09	.08	.09	.07
Blue, bags lb.	.11	.12	.12	.11	.12	.09
Colchicum Root, bags lb.	.08	.09	.09	.07	.07	.06
Seed, bags lb.	.80	.85	.85	.65	.70	.25
COLUMBO ROOT, bags lb.	.19	.20	.20	.19	.20	.05
Colocynth Pulp, bales lb.	.42	.45	.45	.42	.110	.42
Coltsfoot Leaves, bags lb.	.08	.09	.09	.08	.12	.08
Comfrey Root, bags lb.	.13	.....	.14	.13	.14	.14
Condurango Bark, bags lb.	.15	.16	.17	.15	.16	.13
Coriander Seed, Morocco, bags lb.	.05	.06	.06	.05	.13	.05
Bleached, bags lb.	.11	.11½	.11½	.11	.19	.11
Corn Silk, bales lb.	.05½	.06½	.06½	.05½	.06½	.05
Cotton Root Bark, bales lb.	.....	.13	.13	.12	.15	.12
Cowhage, 1 oz tins lb.	1.00	.....	1.00	1.00	1.00	.95
Cramp Bark so called bales lb.	.07½	.08	.08	.06	.08	.05½
True, bags lb.	.45	.48	.48	.45	.55	.34
Cranesbill Root, bags lb.	.10	.....	.10	.10	.12	.10
CUBEB BERRIES, XX bags lb.	.48	.53	.53	.48	.53	.48
Powdered, boxes lb.	.50	.55	.55	.50	.55	.50
Culvers Root, bags lb.	.18	.19	.20	.18	.22	.18
Cumin Seed, Malta, bags lb.	.12	.13	.13	.12	.15	.12
Morocco, bags lb.	.12	.13	.13	.12	.15	.12
Cuttlefish, Bone Trieste, Straps lb.	.14	.14	.14	.14	.14	.13
French, boxes lb.	.13	.16	.16	.12½	.15	.12½
Powdered, bbls lb.	.09	.10	.10	.09	.10	.09
Broken, bales lb.	.05	.....	.05	.05	.05	.05
Damiana Leaves, bales lb.	.17	.18	.18	.16	.30	.16
Dandelion Root, Imp. bags lb.	.21	.25	.25	.19	.20	.14
Deer Tongue Leaves, bales lb.	.11	.13	.13	.11	.18	.10
Digitalis Leaves, bales lb.	.60	.70	.70	.60	.70	.30
Dogwood Bark, Jamaica bags lb.	.10	.11	.11	.10	.10½	.09
American bales lb.	.06½	.....	.06½	.06½	.06½	.06½
Doggrass Root, USP, cut bags lb.	.10	.11	.12	.10	.13	.10½
Dragons Blood Mass, cases lb.	.65	.70	.70	.65	.70	.65
Reeds, boxes lb.	.95	.....	.95	.95	.95	.95
Echinacea Root, bags lb.	.26	.28	.28	.26	.33	.26
Elcampane Root, bags lb.	.08	.09	.09	.08	.09	.08
Elder Flowers, bags lb.	.23	.24	.24	.22	.25	.19
Elemi Gum, 85 lb cases lb.	.26	.28	.28	.26	.28	.20
Elm Bark, bundles lb.	.25	.26	.26	.25	.27	.22
Grinding bags lb.	.13½	.14	.14	.13½	.14	.13½
Powdered, bbls lb.	.19	.22	.22	.19	.22	.19
Ephedra Vulgaris, bales lb.	.12	.13	.16	.12	.25	.15
ERGOT, 150-200 lb bags lb.	.65	.75	.95	.65	2.50	.80
Eucalyptus Leaves, bales lb.	.10	.11	.11	.07½	.10	.06½
Euphorbia Pilulifera, Herb, bags lb.	.10	.11	.11	.09	.10	.07½

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{ Monthly Review }

only at irregular intervals and in comparatively small volume."

The present spot position is extremely easy, and in fact it is weak in some instances. Prices are openly quoted at 70c @ 75c per pound for Spanish goods with shading more than probable for firm orders. The bottom of the market for Spanish goods is best explained by the fact that the import price is about 60c @ 65c per pound.

The extreme weakness in the spot position comes as a result of the large quantities of Russian and Polish goods that are in the market as a result of the controlled position of Spanish ergot during late 1927 and 1928. Now that Spanish is available in large quantities at very reasonable prices, the Russian and Polish producers are having difficulty in moving their goods.

It hardly seems fair that the Spanish should obtain the full demand when it is well known just what can and will happen if the Spanish producers are in full control of the market with supplies not available elsewhere. It would be much better for the drug industry to keep two sources of supply in an active condition.

Gum Aloes—There isn't Any

The position of Gum Aloes is becoming steadily worse instead of better. One seller states that he has orders on his books for over 1,000 cases. There are no goods in the primary market and no indications when there will be any available. Needless to say there are no goods to be found here on spot.

Another seller tells that he received a telegram from a buyer asking for supplies and stating that up to 50 cases could be used. The answer was to the effect that the seller would place the buyer at the bottom of the list to receive goods if, when, and how they arrived.

It is not a question of price or of anything else, it is simply a case of **there isn't any.**

As to the cause of shortage, that is a case of the labor formerly used to collect aloes now being employed in oil refineries. Since the wages at the refineries are much higher than were obtained for collecting aloes it is not necessary for the women to work at all and they will not take the place of the men in this work. Consequently, there is no one in the country who thinks about aloes. They do not know or do not care what prices are being offered for the goods. Probably some day it will be explained to some of them that the present prices will return them more for gathering aloes than can be obtained from the oil refineries and some of them will return to work, but in the meantime the drug trade must go without.

Licorice Root Imports Decline

Licorice root imports into the United States for 1928 amounted to 69,402,000 pounds, valued at $1,872,000, against 80,195,000 pounds, with a value of $2,174,000, for 1927. Approximately one-third of the imports comes from Iraq.

Consul John Randolph, Baghdad, Iraq, states that licorice root, though exported, is not cultivated in Iraq but grows wild along the banks of the Tigris, Dialah, and other rivers. According to the customs publications of the ministry of finance, Iraq's licorice exports during the financial year 1926-27 amounted to 7,373,000 pounds, valued at $141,000, compared with 1923-24, $438,278; 1924-25, $100,880; 1925-26, $232,755.

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Euphorbium Gum, cases....lb.	.14	.20	.20	.14	.20	.14
Fennel Seed, French, bags...lb.	.17½	.18½	.18½	.17½	.25	.16½
German bags.....lb.	.25	.27	.27	.25	.32	.20
Foenugreek Seed, 200 lb bags .....lb.	.05	.05½	.05½	.05	.06	.04½
Fish Berries, 100-125 lb bag..lb.	.06	.07½	.07½	.06	.07½	.06
Flax Seed, Whole 182 lb bbls..lb.	14.00	14.75	14.75	14.00	14.75	14.00
Ground, 180 lb bbls.....lb.	.08	.08½	.08½	.08	.08½	.08
Flea Seeds Black bags.....lb.	.23	.24	.24	.23	.27	.16
Fringe Tree Bark or Root bags .....lb.	.23	.24	.24	.23	.27	.22½
Fumigating Pastiles, boxes..lb.	.30	.35	.35	.30	.35	.30
Galangal Root, bags.....lb.	.14	.15	.15	.14	.15	.11
Galbanum Gum, cans.....lb.	1.15	1.25	1.25	1.15	1.25	1.00
Gamboge Gum, 100 lb cases..lb.	1.20	1.25	1.25	1.15	1.35	1.10
Powdered, cases.....lb.	1.35	1.40	1.40	1.25	1.50	1.20
Gelsemium Root, bags.....lb.	.11	.12	.12	.11	.13	.09
GENTIAN ROOT, bags....lb.	.10	.11	.11	.10	.11	.09
Ground bbls, boxes.....lb.	.13	.14	.14	.13	.14	.11
Powdered, bbls, boxes....lb.	.13	.14	.14	.13	.14	.12½
Ginger, African, bags.....lb.	.13	.13½	.15½	.13	.14½	.10½
Jamaica Grinding bags....lb.	.18	.18½	.20	.18	.23	.17
Cochin ABC & Lemon, bags .....lb.	.17	.18	.18	.17	.20	.16
Ginseng Root, cultivated cs..lb.	8.00	10.00	10.00	8.00	10.00	8.00
Wild Southern, cases.....lb.	.....	16.00	16.00	16.00	16.00	8.50
Golden Seal Root, bags.....lb.	3.70	3.80	3.80	3.20	4.50	3.90
Powdered, boxes.....lb.	4.25	4.35	4.35	4.00	5.25	4.60
Herb, barrels.....lb.	1.25	1.30	1.30	1.25	1.30	1.25
Grains of Paradise, bags....lb.	.50	.60	.60	.50	.60	.40
Grindelia Robusta, Herb, bale .....lb.	.10	.11	.12	.10	.12	.08½
Guaiac Gum, 150 lb cases...lb.	.37	.38	.38	.33	.40	.33
Strained 75 lb cases...lb.	.70	.75	.75	.70	.75	.70
Guarana, tin cases.....lb.	2.75	3.00	3.00	2.50	2.75	1.65
Hellebore Root, Black, bbls. lb.	.05½	.06	.06	.05½	.06	.05½
White, 250 lb bbls.....lb.	.07¾	.08½	.08½	.07¾	.08½	.07¾
Powdered.....lb.	.11	.12	.12	.11	.14	.11
Helonias Root, bags.....lb.	.70	.72	.72	.70	.80	.67
Hemp Seed, bags.....lb.	.05	.06	.06	.05	.07	.03½
Henbane Leaves, USP, bales..lb.	.19	.20	.20	.18	.23	.18
HENNA LEAVES, bales....lb.	.12	.13	.13	.12½	.13	.12½
Powdered.....lb.	.15	.16	.17	.15	.17	.16
Hops, bales.....lb.	.....	.32	.32	.32	.32	.25½
Horehound, Herb, bales.....lb.	.08	.09	.09	.08	.09	.07
Hydrangea Root, bales.....lb.	.....	.09	.09	.08	.09	.08
Insect Flowers.....lb.	.35	.37	.37	.35	.35	.22
Powdered, Pure, 200 lb bb .....lb.	.43	.45	.46	.43	.45	.32
IPECAC ROOT, Carteagna, bags.....lb.	3.00	3.25	3.35	2.70	3.30	2.35
Powdered, 220 lb bbls....lb.	3.35	3.50	3.80	3.20	3.65	3.15
Rio Whole, bags.....lb.	3.00	3.20	3.20	2.85	3.40	2.80
Powdered, 110 lb bbls....lb.	3.40	3.50	3.50	3.40	3.50	3.25
Isinglass, American, 130 lb cases .....lb.	.95	1.00	1.00	.95	1.00	.95
Russian (Beluga), boxes...lb.	4.50	.....	4.50	4.50	4.50	4.50
Jaborandi Leaves, bales....lb.	.12	.12½	.12	.11½	.13	.13
Jalap Root, Whole, 150 lb bag.....lb.	.27	.30	.37	.27	.21	.16
USP. Powd. 250 lb bbls....lb.	.32	.35	.42	.32	.26	.22
Japan Wax 24 lb cases.....lb.	.18½	.19	.19	.18½	.19	.18½
JUNIPER BERRIES, 125 lb bags.....lb.	.07½	.08	.09	.05	.07½	.05
Kamala, boxes.....lb.	.95	1.00	1.00	.95	1.00	.85
Karaya Gum, Powdered, bbls .....lb.	.12	.20	.20	.12	.13	.12
Kava Kava Root, bags.....lb.	.15	.....	.15	.15	.16	.15
Kino Gum, Black, cases....lb.	.50	.55	.55	.50	.55	.50
Kola Nuts, 150 lb bags.....lb.	.13	.14	.15	.13	.15	.09
Lady Slipper Root, bags....lb.	1.25	1.30	1.30	.85	1.75	.78
Larkspur Seed, bags.....lb.	.40	.45	.45	.40	.45	.30
Laurel Berries, bags.....lb.	.08	.09	.09	.08	.09	.08
Leaves, Greek, bags.....lb.	.05	.05½	.05½	.05	.07	.04½
Italian, bales.....lb.	.03½	.04	.04	.03½	.05	.03½
Lavender Flowers, Ordinary..lb.	.32	.35	.35	.32	.35	.30
Selected.....lb.	.44	.45	.45	.44	.55	.40
Lemon Peel, bags.....lb.	.10	.11	.13	.10	.10	.09½
LICORICE ROOT, Whole bbls .....lb.	.12	.18	.18	.12	.18	.12
Spanish Natural bales....lb.	.05½	.07	.07	.05½	.07	.05½
Powdered, bbls.....lb.	.09	.10	.10	.09	.10	.09
Selected 2 & 5 lb bdls....lb.	.13	.15	.15	.12½	.16	.12½
Cutting, 125 lb bags....ln.	.06½	.07	.07	.06½	.07	.06½
Turkish, 150 lb bales.....lb.	.05	.....	.05	.05	.05	.05
Linden Flowers with leaves, bales.....lb.	.25	.26	.27	.25	.33	.29
Without leaves, bales...lb.	.30	.31	.32	.30	.36	.27
Liverwort Leaves, bales.....lb.	.18	.19	.20	.18	.20	.16
Lobelia, Herb, bales.....lb.	.14	.15	.16	.14	.20	.15
Seed, bags.....lb.	.45	.50	.65	.45	.75	.65
Lovage Root, Imp., bags....lb.	.35	.37	.37	.25	.27	.25
Lupulin N. F., tins.....lb.	1.75	.....	1.75	1.75	1.75	1.75
Lycopodium, 88 lb. cases....lb.	.73	.75	.85	.73	1.00	.70
MACE SIAUW, No. 1, cases .....lb.	.82	.83	.83	.82	.98	.88
Banda No. 1, cases.....lb.	.97	.98	.98	.97	1.00	.94
Batavia No. 2, cases.....lb.	.56	.58	.58	.56	.68	.56
Malva Flowers, Blue, bales..lb.	.45	.47	.52	.45	.70	.45
Black, bales.....lb.	.45	.60	.60	.45	.60	.45
Leaves, bales.....lb.	.14	.15	.15	.14	.15	.14
Manaca Root, bales.....lb.	.22	.....	.22	.22	.22	.22
Manna, Large Flake, cases...lb.	.80	.82	.82	.75	.80	.65
Small Flake, cakes.....lb.	.52	.55	.60	.52	.60	.50
Sorts, cases.....lb.	.45	.50	.50	.45	.50	.45
Mandrake Root, bags.....lb.	.12	.13	.14	.12	.18	.13
Marjoram, Herb .....lb.	.18½	.19	.19	.18½	.18½	.13½
French, No. 1 bales.....lb.	.22	.23	.23	.22	.18½	.12
German, bales.....lb.	.65	.70	.70	.65	.70	.60
Mastic Gum, 120 lb cans....lb.						

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{ *Monthly Review* }

Dutch Caraway Position Short

The following statistics are issued by "Oranje," Amsterdam, under date, February 6, 1929 (all figures with exception of those with a* are official). The exports of spent caraway seed is not included:—

	Bags		Exports 1/7—30/6 Bags
July 1, 1924	No stocks	1924/1925	193,741
Crop 1924	289,770	1925/1926	141,295
" 1925	276,572	1926/1927	108,456
" 1926	96,577	1927 July/Dec.	75,455
" 1927	91,199	1928 Jan./June	56,839
" 1928	83,800	1928 July/Dec.	98,289
	837,918		675,075
		Loss by cleaning about 2%	16,760*
		Loss in weight about 3%	25,140*
		Home consumption and for distilling: 4½ yrs.	54,000*
	770,975 bags		770,975

66,943 bags of 50 kgs. = Stocks on Jan. 1, 1929.

"The new crop 1929 is coming from 3,989 H. A. only, which with an average yield of 25 bags per H. A., will produce 100,000 bags and together with the 67,000 bags stock on January 1 a total of 167,000 bags to cover the requirements until August, 1929, or 19 months.

"Exports during the 12 months 1928 amounted to 155,128 bags, which means for 19 months 245,613 bags exports, home consumption for sowing and distillation not included. This involves more than 80,000 bags short for the next 18 months. Even if we take in consideration, that exports in December, 1928, were 10,000 bags more than in December, 1927 on account of big exports to the States in connection with enhanced rate of freight in 1929, the short remains too important to be neglected."

More and Lower Priced Mahaung

Exports of Mahaung from China showed another sharp advance in quantity during the first 11 months of 1928 when they practically doubled over the same period of 1927.

Rhubarb was also imported from China during 1928 while none was imported during 1927.

The figures supplied by Vice-Consul A. I. Ward, Tientsin, China, follow:

Commodity	*1927* (11 *months*) *Pounds*	*Value*	*1928* (11 *months*) *Pounds*	*Value*
Rhubarb			18,100	$4,900
Mahaung	565,800	$60,700	1,003,700	69,300
Corydalis			126	23
Ephedrine hydrochloride	23	7,490	20	3,688

Lower values in invoice figures for Mahaung are mentioned by the Consul in his report in which he says:

"Interesting price changes are revealed upon an examination of the foregoing table, among which may be mentioned a drop in the average value per pound of Mahaung from $0.017 in 1927 to $0.069 in 1928. November shipments of this drug amounted to 110,000 pounds, valued at $7,215, or an average value of $0.066 per pound. While exports of ephedrine hydrochloride decreased only three pounds, the value decreased $3,802."

	Current Market	1929 High	1929 Low	1928 High	1928 Low
Matico Leaves, bales lb.	.30	.31	.32	.30	.45	.31
Mezereon Bark, bags lb.	.20	.25	.25	.20	.35	.20
Millet Seed, Yellow, bags lb.	.04	.04½	.04½	.04	.04½	.03½
Montan Wax, Crude, bags lb.	.06½	.07	.07	.06½	.07	.06½
Bleached, bags lb.	.25	.28	.28	.25	.28	.25
Moss, Iceland, bales lb.	.10	.12	.11	.10	.12	.07½
Irish, Bleached, bales lb.	.15	.18	.18	.15	.18	.11
Mullein Flowers, tins lb.	2.00	.....	2.00	2.00	2.25	2.00
Leaves, bales lb.	.07½	.08	.08	.07½	.08	.07½
Musk Root, Russian, bags lb.	.09	.10	.12	.09	.25	.11½
Myrrh Gum, 200 lb, cases lb.	.42	.45	.65	.42	1.10	.55
Nutgalls, Chinese, bags lb.	.22	.....	.22	.22	.22	.22
Aleppy, bags lb.	.21	.....	.21	.21	.25	.21
Powdered, bags lb.	.23	.....	.23	.23	.23	.23
Nutmegs, 110's cases lb.	.31	.31½	.31½	.30	.38	.30
75's & 80's cases lb.	.39	.40	.42	.39	.50	.42
Grinding, bags lb	.24	.25	.25	.24	.29	.26½
NUX-VOMICA Buttons, bag lb.	.05	.06	.06	.05	.05½	.04
Powdered, 200 lb bbls lb.	.08	.08½	.08½	.08	.08½	.08
Oak Bark, bags lb.	.05	.05½	.05½	.05	.06½	.05
Olibanum Gum, 280 lb cases Siftings lb.	.13½	.15	.15	.13	.11½	.13
Tears, No. 1 Extra lb.	.27	.28	.28	.27	.30	.26
No. 2 lb.	.19	.21	.21	.19	.20	.18
No. 3 lb.	.15	.17	.17	.15	.17	.14
Opium Gum, USP, cases lb.	12.00	13.00	13.00	12.00	13.00	12.00
Granular, cans lb.	13.00	14.00	14.00	13.00	14.00	13.00
Powdered, USP, cans lb.	13.00	14.00	14.00	13.00	14.00	13.00
Orange Flowers, cases lb.	.25	.....	.25	.25	.25	.25
Peel, Bitter, bags lb.	.11	.12	.12	.10	.11	.10
Sweet bags lb.	.13	.14	.14	.12	.08½	.08½
ORRIS ROOT, Flor. bid. bags lb.	.24	.25	.25	.17	.14½	.10
Powdered, 200 lb bbls lb.	.27	.28	.28	.21	.17	.13
Verona, bags lb.	.22	.23	.23	.16	.13	.09
Powdered, 200 lb bbls lb.	.26	.27	.27	.20	.14	.11
Fingers, boxes lb.	1.15	1.20	1.20	.90	.90	.80
Ozokerite Wax, Brown, Hard lb.	.....	.....	.....	.....	.....	.....
Bags lb.	.24	.25	.25	.24	.25	.24
Green, Hard, bags lb.	.30	.31	.31	.30	.31	.30
Yellow, Refined, bags lb.	.37	.....	.37	.37	.37	.37
Papain, Crude, 150 lb cases lb.	3.45	3.50	3.50	3.45	4.90	3.45
Pure, Powdered, 10 lb bot. lb.	3.50	3.55	3.55	3.50	4.35	3.50
Paprika, bags lb.	.29	.33	.33	.29	.33	.23
Pareira Brava Root, bags lb.	.13	.14	.14	.11	.12	.11
Passion Flower, bales lb	.70	.75	.75	.14	.15	.06½
Patchouli Leaves, bales lb.	.22	.23	.23	.22	.29	.22
Pennyroyal, Herb, 100 lb bags lb.	.07	.....	.07	.07	.07	.07
Leaves, 100 lb bags lb.	.14	.16	.16	.14	.16	.14
PEPPERMINT LEAVES, Imp bales lb.	.43	.45	.45	.43	.50	.43
Domestic, bales lb.	.30	.31	.31	.24	.40	.24
Pichi Leaves, bags lb.	.13	.14	.16	.13	.14	.13
Pimento Select, bags lb.	.25	.28	.28	.22	.23	.16½
Pink Root, True, bags lb.	.58	.60	.60	.58	.75	.58
Pleurisy Root, bags lb.	.22	.23	.28	.22	.28	.22
Poke Berries, bags lb.	.....	.30	.30	.20	.30	.20
Root, 200 lb bales lb.	.07½	.08	.08	.07½	.10	.07½
Pomegrant Bark of Root, bags lb.	.30	.35	.35	.20	.44	.20
Bark of Fruit, bags lb.	.25	.30	.30	.25	.30	.30
Bark of Tree, bags lb.	.18	.22	.22	.15	.21	.15
POPPY FLOWERS, Red, bags lb.	.55	.60	.60	.50	.65	.50
Heads, bags lb.	.50	.....	.50	.50	.50	.08
Prickly Ash Bark lb.	.14	.17	.17	.14	.17	.14
Southern bags lb.	.13½	.14	.14	.13½	.16	.13½
Northern, bags lb.	.17	.18	.18	.17	.25	.16
Berries, bags lb.	.19	.20	.20	.19	.22	.17½
Prince's Pine, bales lb.	.18	.20	.20	.15	.17	.14
Pulsatilla, Herb, bags lb.	.13	.14	.14	.13	.14	.11
Pumpkin Seed, bags lb.	.14	.15	.15	.14	.25	.14
Quassia Chips, bags lb.	.06½	.....	.06½	.06½	.06½	.06½
Quebracho, bulk, 125 lb. bbl. lb.	.29	.30	.30	.29	.36	.29
Root, bags lb.	.....	.07	.07	.07	.08	.07
Quince Seed, bags lb.	.70	.80	.80	.70	.80	.60
Cape, bags lb.	1.10	1.25	1.25	1.10	1.50	.95
Rape Seed, South American, bags lb.	.05½	.06	.06	.05½	.06½	.04½
Dutch, bags lb.	.06½	.07	.07	.06½	.07½	.05½
Japanese, small bags lb.	.06½	.07	.07	.06½	.07	.06½
Raspberries, Dried, bbls lb.	.50	.60	.60	.45	.85	.45
Red Saunders, bags lb.	.08	.....	.08	.08	.08	.08
Rhatany Root, bags lb.	.11	.12	.12	.11	.12	.11
Rhubarb Root, HD, cases lb.	.40	.41	.41	.40	.45	.38
Powdered, bbls lb	.45	.46	.46	.45	.53	.43
Rosemary Leaves, bales lb.	.04½	.05	.05	.04½	.06	.04½
Flowers, cases, bales lb.	.25	.30	.30	.25	.30	.25
Rose Petals, pale lb.	.41	.42½	.42½	.41	.45	.38
Red lb.	1.75	1.80	1.80	1.75	2.20	1.70
Rue, Herb, bales lb.	.18	.20	.20	.18	.20	.18
Sabadilla Seed, bags lb.	.29	.30	.34	.29	.35	.30
Powdered, bbls lb.	.35	.36	.39	.35	.38	.32
SAFFRON FLOWERS, American, bales lb.	.35	.40	.40	.35	.40	.29½
Valencia, 1 lb cans lb.	11.50	12.00	12.00	11.50	16.00	11.25
Sage Dalmatian, bales lb.	.05½	.06	.06	.05½	.07	.05½
Greek, bales lb.	.05½	.06	.06	.05½	.06	.04½
Sandarac Gum, 300 lb bbls lb.	.65	.70	.70	.40	.43	.30
Sarsaparilla Root, Honduras, bales lb.	.54	.55	.55	.54	.58	.52
Mexican, bales lb.	.38	.40	.40	.26	.29	.20
Sassafras Bark, Ordinary, bales lb.	.14	.16	.16	.14	.17	.13½
Select, bales lb.	.26	.28	.28	.24	.27	.23
Savory Leaves, bale lb.	.08½	.09	.09	.08½	.10	.07½
Saw Palmetto Berries, bags lb.	.11	.12	.12	.11	.20	.11

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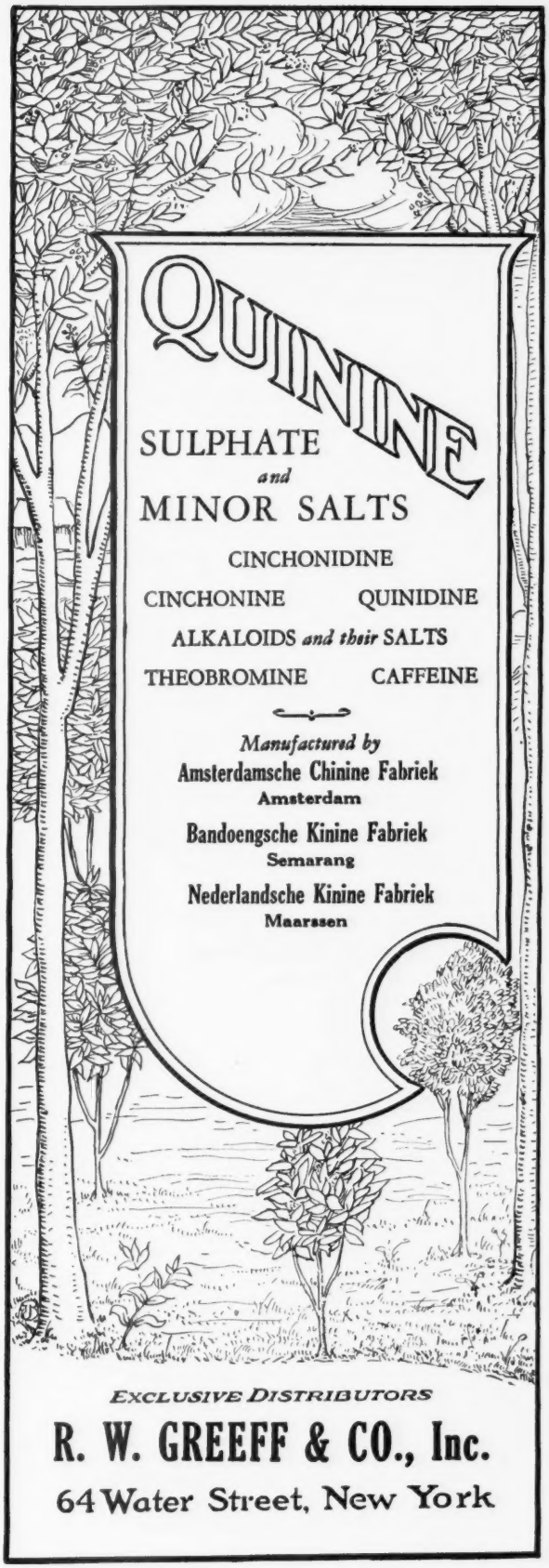
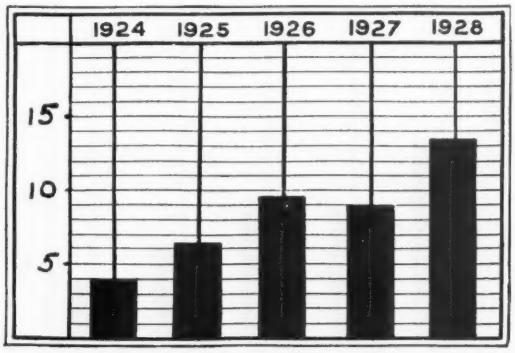


{ Monthly Review }

Pyrethrum Imports Increase 50%

Quietness but firmness continues to characterize the market for pyrethrum flowers, despite the fact that sellers generally have for some time been of the opinion that, in view of the statistical position, an advance was imminent. Imports have for a long time been greatly in excess of the reported production in Japan and Dalmatia, sellers venturing the opinion that the excess over the crop came from reserve stocks carried over from years of very heavy production.

But in view of the fact that imports continue to grow by leaps and bounds—gaining 50% in 1928 compared with 1927—supplies continue to be available despite all the reports of short crops and depleted reserve stocks. There is not question, however, that the price is steadily establishing itself on higher selling levels as consumption continues to grow, and, unless some entirely new, and at this time unknown, source of flowers is brought into the market, still higher prices can readily be anticipated as time goes on.



Imports of Pyrethrum Flowers in millions of pounds

Imports for 1928 totaled 13,639,009 pounds, compared with 8,993,109 pounds, according to the Bureau of Foreign & Domestic Commerce.

While the Japanese flowers furnish the large majority of the flowers consumed, Yugoslavia has always been an important contributing factor. Consul McMillan at Belgrade reports an increase in supplies from that territory: "Although pyrethrum flowers are grown principally in Dalmatia and Montenegro, which are part of the Zagreb district of Yugoslavia, the offices of the trade are in Belgrade and 95 per cent. of the exports in 1928 was invoiced there. During the past five years exports of pyrethrum flowers from Yugoslavia to the United States have been as follows:

Year	*Pounds*	*Value*	*Year*	*Pounds*	*Value*
1924	32,612	$9,189	1927	623,970	$99,306
1925	374,133	39,862	1928	1,024,083	237,648
1926	77,693	13,015			

"The percentages of the 1928 value were: Belgrade—96 per cent. and Zagreb—4 per cent.

"The Yugoslav annual production of pyrethrum flowers amounts to from 1,200 to 1,500 metric tons. The quantity declared for shipment above in 1928 represents approximately one-third of a year's crop. Until recent years, the crop has been marketed almost entirely through Trieste. More recently a tendency has been noted to sell directly to the consumer thus eliminating the middleman."

		Current Market		1929 High	1929 Low	1928 High	1928 Low
Scammony Resin, boxes	lb.	1.30	1.35	1.35	1.30	1.35	1.30
Root, bags	lb.	.08½	.....	.08½	.08½	.08½	.08½
Senega Root, bags	lb.	1.32	1.35	1.35	1.32	1.40	1.27
SENNA ALEX., 150 lb cases	lb.	.25	.30	.30	.25	.30	.25
Half leaf 150 lb cases	lb.	.13	.15	.15	.13	.15	.13
Sifting, 400 lb bales	lb.	.10½	.11	.11	.10½	.11	.10½
Tinnevelly, Bold, 350 lb bales	lb.	.16	.18	.18	.16	.20	.15
Medium Leaf	lb.	.11	.12	.12	.11	.13½	.09
Small Leaf	lb.	.08	.10	.10	.08	.10	.07
Pods, 350 lb	lb.	.08½	.09	.09	.08½	.13	.08½
Powdered, 200 lb	lb.	.....	.11	.11	.11	.10	.11
Serpentaria Root, bags	lb.	.65	.68	.72	.70	.77	.70
Shellac, T. N., bags	lb.	.57	.58	.58	.57	.58	.57
Simaruba Bark, bales	lb.	.35	.40	.40	.32	.38	.08
Skullcap Leaves, Eastern, bales	lb.	.....	.40	.40	.40	.40	.33
Western, bales	lb.	.18	.19	.20	.18	.26	.18
Skunk Cabbage, Striped, bales	lb.	.14	.16	.16	.14	.16	.14
Snake Root, Canada Natural, bags	lb.	.24	.25	.25	.24	.30	.24
Canada, Stripped, bags	lb.	.55	.....	.55	.55	.55	.55
Soap Bark	lb.	.14	.15	.15	.14	.15	.14
Cut, 125-175 lb bags	lb.	.16	.....	.16	.16	.17	.16
Crushed, 200 lb bbls	lb.	.16	.....	.16	.16	.17	.16
Powdered, bbls	lb.	.17	.....	.17	.17	.18	.18
Spearmint Leaves, American, bales	lb.	.25	.30	.30	.25	.30	.25
Spermaceti, blocks, cakes, cases	lb.	.32	.35	.35	.32	.35	.32
Spikenard Root, bags	lb.	.19½	.20	.20	.19½	.25	.20
Squaw Vine, bales	lb.	.20	.21	.21	.18	.21	.21
Squills, White	lb.	.12	.13	.13	.10	.16	.08
Powdered, bulk	lb.	.23	.25	.25	.20	.30	.15
Stavesacre Seed, bags	lb.	.17	.18	.18	.17	.18	.15½
Stillingia Root, bags	lb.	.11	.12	.12	.11	.12	.10
Stone Root, bags	lb.	.08	.09	.09	.08	.09	.08
St. Ignatius Beans, bags	lb.	.14½	.15	.15	.14½	.15	.14½
St. John's Bread, bags	lb.	.....	.09	.09	.09	.14½	.09
STRAMONIUM LEAVES, bales	lb.	.18	.20	.20	.18	.20	.16
Seed, bags	lb.	.07½	.....	.07½	.07½	.07½	.07½
Strophanthus Seed, Kombe, bags	lb.	2.00	2.25	2.25	2.00	3.00	2.00
Styrax Liquid, Artificial	lb.	.26	.35	.35	.26	.35	.26
Genuine, USP	lb.	.40	.45	.45	.40	.45	.36
Sunflower Seed, bags Calif	lb.	.06	.07	.07	.06	.09	.06
South American, bags	lb.	.07	.07½	.07½	.07	.07½	.06
Tamarinds, bbls	lb.	.05	.05½	.05½	.05	.06	.05
Kegs	keg	3.85	.....	3.75	3.85	3.85	3.85
Tansy, Herb, bales	lb.	.14	.15	.15	.11	.14	.11
Thus Gum, 280 lb bbls	lb.	.11½	.20	.20	.11½	.20	.11½
THYME, Spanish, bales	lb.	.08½	.09	.09	.08½	.09	.08½
French, bales	lb.	.08	.08½	.08½	.08	.08½	.07
Tonga Root, bundles	lb.	.42	.....	.42	.42	.55	.42
Vine, bundles	lb.	.42	.....	.42	.42	.55	.42
Tonka Beans, Angostura	Cases	1.90	2.00	2.00	1.90	2.00	1.90
Para	cases lb.	.90	.....	.90	.90	.90	.90
Surinam	cases lb.	1.25	1.50	1.50	1.25	1.50	1.25
Tragacanth Gum, No 1, 100 lb cases	lb.	1.45	1.50	1.60	1.50	1.60	1.55
No. 2	lb.	1.40	1.50	1.50	1.40	1.50	1.40
No. 3	lb.	1.25	1.30	1.30	1.25	1.30	1.25
Powdered, 50 lb boxes	lb.	1.00	1.10	1.10	1.00	1.10	.85
Turkish	cases lb.	.45	.....	.45	.45	.45	.45
Turmeric Root Madras, bags	lb.	.08½	.09	.09	.08½	.12	.06
Aleppy bags	lb.	.09½	.10	.10	.09½	.13	.06½
Powdered	lb.	.13	.15	.15	.13	.15	.10
China bags	lb.	.11	.12	.12	.11	.11	.09
Turpentine Venice True, 80 lb cases	lb.	.32	.40	.40	.32	.40	.3
Artificial, 80 lb cases	lb.	.17	.....	.17	.17	.17	.12
Uva Ursi Leaves, bales	lb.	.06	.06½	.06½	.06	.07	.07
Valerian Root, Belgium, bags	lb.	.25	.30	.30	.25	.30	.16
VANILLA BEANS, Mexican, whole, cases	lb.	3.25	4.00	4.00	3.25	4.00	4 3.25
Cuts, cases	lb.	2.50	2.75	2.75	2.50	2.75	2.50
Bourbon, cases	lb.	1.85	2.25	2.25	1.85	2.75	2.00
South American, cases	lb.	2.50	2.75	2.75	2.50	2.75	2.50
Tahiti, Green, label cases	lb.	2.25	2.50	2.50	2.25	2.50	2.25
Vetivert Root, 100 lb bags	lb.	.25	.....	.25	.25	.30	.25
Violet Flowers, bags	lb.	.95	1.00	1.00	.68	.90	.63
Wahoo Bark of Root, bags	lb.	.55	.56	.56	.54	.62	.51
Bark of Tree, bags	lb.	.30	.31	.31	.30	.35	.25½
White Pine Bark, Roseed, bags	lb.	.13	.15	.15	.07	.08	.07
White Poplar Bark, bags	lb.	.05½	.07	.07	.05½	.07	.05½
Wild Cherry Bark, Thin, Green	lb.	.19	.20	.20	.19	.....	.....
Rossed bales	lb.	.11	.12	.12	.11	.12	.11
Thick Rossed, bales	lb.	.09	.....	.09	.09	.09	.09
Thin Natural, bales	lb.	.08	.09	.09	.07½	.08	.07½
Thick Natural, bales	lb.	.06	.06½	.06½	.05	.06	.05
Wild Indigo Root, bags	lb.	.13	.14	.14	.13	.14	.13
Willow Bark, bags	lb.	.05	.05½	.05½	.05	.06	.05
White, bags	lb.	.15	.....	.15	.15	.05	.15
Witch Hazel Bark, bags	lb.	.07	.08	.08	.05½	.08	.06½
Leaves, bales	lb.	.07	.08	.08	.06½	.....	.....
Wormseed, American, bags	lb.	.12	.13	.13	.12	.20	.15
Levant, bags	lb.	4.00	4.15	4.15	4.00	5.25	4.25
Wormwood, Herb, Imp., bales	lb.	.10	.10½	.10½	.10	.10½	.10
Dock Root, bags	lb.	.10	.11	.11	.10	.11	.10
Yerba Mate, bags	lb.	.18	.20	.20	.18	.20	.18
Santa, bags	lb.	.10	.11½	.11½	.09½	.11	.90½
Zedoary Root, bags	lb.	.07	.08	.08	.06½	.07	.06½

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of Highest Quality Refined
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Oxalic Acid	Tri Soda Phosphate
Bicarbonate Potash	Manganese Sulphate
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AND THE PREVENTION OF
Dental Caries

Among the many excellent qualities of cod liver oil it has long been known that its capacity to prevent dental caries among children is not the least conspicuous.

Experiments recently carried out by May Mellanby and C. Lee Pattison, M. B., B. S. would appear to confirm this. The authors write (in the British Medical Journal for 15. December, 1928):

"This investigation corroborates those previously made, in which it was found that the carious process in the teeth of children could often be inhibited by increasing the intake of fat-soluble vitamins by the addition to the diet of cod-liver oil, egg yolk, and extra milk. The present work shows that vitamin D is a most powerful agent in these inhibitory processes".

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General view of Fishing Fleet in Harbor of chief fishing port in Lofoten.

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TARTARIC ACID U. S. P.

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Theophrastus was Right!

SEVERAL thousand years ago there lived a Greek philosopher, Theophrastus by name. He wrote on many subjects, among them perfumes. In writing of perfumes, Theophrastus made this very significant statement: "a lasting perfume is what women require."

What was true in the days of Theophrastus is true to-day. The women of to-day make the same demand of perfumes that their sisters of old made: *they want perfumes that last.*

The successful perfumes are the lasting perfumes. No matter how agreeable a perfume may be, if its odor won't last it won't sell. This can be easily verified at any toilet goods counter.

Douceine

Among their indispensable ingredients many noted European perfumers include a product that not only gives perfumes unusual lasting qualities, but that likewise adds a finishing touch of amber-like sweetness. We have made this invaluable product available to American perfumers under the name of "Douceine."

"Douceine" is well qualified to speak for itself. We therefore suggest that you let us send you a working sample so that you can give this unique product a thorough try-out. It will be sent to you without charge or obligation.

Exclusive American Agents:

Quicksilver Fight Continues

(Continued from page 232)

The English factors are of the opinion that when the large part of the English material is disposed of, the English sellers will force the price up to a point that will cause the Monopoly to sell heavily. At that time, it is thought, the English will be the heaviest buyers without the Monopoly knowing it. Then when the English have control of sufficient metal, they will again attempt to control the market.

The amount of quicksilver in the hands of the English last October was estimated at 40,000 to 50,000 flasks, and was thought sufficient to carry through six months of normal demand. This estimate was not high enough, however, as the English have been supplying the market for very close to six months since that estimate was made, and are showing no signs of weakening as yet.

The latest predictions are that April should see something doing in one way or another.

Will Mexico Augment Our Menthol Supply?

(Continued from page 242)

ditions contains up to 54.27 per cent. of chemically pure menthol; this proportion is much higher than is found in English mint, Mitcham, German, Turkish, memtha piperata, etc., which contain no more than 32.5 per cent. of menthol in the case of the English or German products, whereas the Turkish product reaches a maximum of only 14 per cent.

The industrial exploitation of odorous tabaquillo in Mexico could constitute a source of national wealth as in Japan, which produces 65,000 kilograms a year; the United States 37,000; France 4,800; England 7,800; etc. If we take into account the prodigality of the soil and the extensive areas in the Republic in which the tabaquillo may be cultivated it is easy to imagine the enormous production of essence and the great wealth which this industry would represent.

At the present time the local price of the essence of Mentha piperita is about $90 gold per kilogram.

Contact Committee Meeting

The Pharmaceutical Contact Committee of the A. D. M. A. and the American Pharmaceutical Manufacturers' Association has been called to meet in Washington March 25 and 26, and the A. D. M. A. committee on catalogue simplification has been called for Washington, March 27.

Telephone day rates for toll and long distance calls in the Bell System were reduced as of February 1. This reduction affects calls between points from 130 to 1,490 miles apart, and represents a saving of from 5 to 25 cents for station-to-station three minute calls within the specified distances.

Foreign Abstracts

(Continued from page 244)

The therapeutic value is established by a series of tests on mice infected with trypansomes. Each batch made must be compared with the salversan standard. The salvarsan is considered as active if it conforms to the salvarsan standard in a series of comparative experiments. The time of observation of animals, whose blood is carefully anaylzed every day, is ten days.

The recurrent infection of white mice is used under the same conditions in testing salvarsan preparations which do not have any action on trypansomiases. The salvarsan which have been tested in this manner and found to be satisfactory are then sent to a number of large university clinics for a clinical test. It is only after the results of these experiments are received that the salvarsan is filled into ampoules and shipped to the market.

Inasmuch as all salvarsan preparations are easily oxidized by the oxygen in the atmosphere and the products of decomposition formed in this manner are highly toxic, there must be an absolute vacuum within the ampoule before they are sealed. The tightness of the ampoule is tested by a special method. G. Schulz, Pharm. Berichte, 1928, number 5, pp. 146-150 and number 6, 179-181.

Rapid Examination of Rye Affected with Ergot

The Tschirch method of obtaining an approximate idea of the proportion of ergotamin in rye affected with ergot does not always give good results, even when the ergoted rye contains the minimum amount of alkaloids. In developing a better, method the author found by modifying the qualitative method of Keller and Fromme for the determination of cornutin, it was possible to obtain a satisfactory method even where the Tschirch method falls down.

Two grams of ergoted rye in the form of a fine powder are degreased by means of petrolatum in a small separatory funnel or in a funnel provided with a stopcock. About ten to twelve grams are used in this experiment. Then an infusion is prepared from the degreased rye, one gram of the powder being treated with twenty grams of water and one drop of hydrochloric acid of twenty-five per cent concentration. Four grams of the filtrate, which are equivalent to 200 milligrams of the powder are strongly agitated with a mixture of one drop of a ten per cent. ammonia and ten cubic centimeters of ether. The mixture is then allowed to stand and five cubic centimeters of the limpid, ether solution are added to a test tube which already contains two cubic centimeters of sulphuric acid, so that the two liquids are allowed to mix only at the point of contact. A bluish ring is formed in the zone of contact between the two liquids within a few minutes.

It is noticed that the ring is not formed exactly at the zone of contact, but about half a millimeter below it. At the end of one half and a half to two hours, the ring enlarges and thus becomes more visible, but its color pales with in the same period of time. If the light is too strong, the ring will disappear. It is best to examine the test tube before a window provided with a ground glass pane so that diffused daylight strikes the test tube. In those cases where the difficulty is attained in obtaining the reaction, the addition of a small amount of ferric chloride acidified with sulphuric acid helps to bring it about. Nevertheless, there are certain cases where the addition of ferric chloride is useless. K. Heringq, Apotheker Zeitung, 1928, number 91, pages 1381-2.

Properties of Gum Arabic

Gum arabic consists essentially of an acid or a mixture of acids which exist in the colloidal state in water and which solution is called gummic acid or arabic acid. As has been shown by Fremy, this acid exists in the free state in part in the gum, and in part in the form of calcium salts, magnesium salts and potassium salts. The author shows in his work that the solution of gum

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arabic are heterogehous and enclose a substance in the state of a gel, which he was able to isolate and study.

Gummic acid is an organic, monovalent acid, very strong in acidic properties. The dissociation constant is about 2.0×10^{-4}. Its molecular weight is about 1,600. The solutions of this acid are very unstable and change rapidly, hydrolyzing and giving products which are insoluble and which are reducing in nature. The author also established the existence of dialyzable acid, a part of which are thermolabile and play an essential role in the determining the oxidizing power of gum arabic. Bulletin de Societe Chimique biologique, 1928, pages 1079-1090.

Practical Therapeutics of Iron Preparations

Only the ferrous compounds of iron are said to be active therapeutically. It has also been said that Siderac, which has been qualified as an active ferric oxide has a therapeutic action due only to the fact that it is not a pure ferric oxide, but a ferroso-ferric oxide; hence it is concluded that its therapeutic activity is due to the presence of ferrous oxide in it. This statement has been contradicted by Bickel who demonstrated the fact that Siderac is composed entirely of pure ferric oxide. The ingredients of the tablets of this preparation have a reducing action in tests made with its solution in hydrochloric acid, and this leads to the conclusion that ferrous oxide must be present in this preparation.

It makes little difference in the therapeutic effect whether the iron preparations are administered by the mouth, for in the body the ions of iron are not present but rather iron complex ions. There is therefore no doubt that these complex ferrous compounds possess a pharmacological action as well as the ferric complexes. Pharm. Zeit., 1928, no. 89, pages 1394ff.

Extracting Cintronellal from Oil of Citronellal

The method developed by Tiemann did not give a citronellal pure enough. An investigation was tyerefore instituted to develop a new method and the one described below was the result.

A solution, containing thirty five per cent. of sodium sulphite is neutralized with the aid of dilute sulphuric acid, phenolphthalein being used as an indicator. Then two per cent. of sodium sulfate is added and the solution is cooled down to a temperature between 15 and 18 degrees C. During the entire operation, the temperature is regulated in such a manner that it never goes above 20 to 21 degrees C.

The oil is then allowed to run slowly into this chilled solution, while it is being mechanically agitated. A precipitate is immediately formed and the liquid becomes alkaline in reaction. The solution is neutralized with acetic acid, ten per cent. concentration, but in each case the final reaction of the solution is permitted to be slightly alkaline. After the last portion of the oil has been added, the solution is agitated again for half an hour. The precipitate is then separated from the solution and the excess liquor is squeezed out of it by placing it in a hand press. It is triturated several times in a mortar with ether and each time the excess ether is squeezed out of the precipitate. Then the dry precipitate is dissolved in the smallest possible quantity of boiling hot water, and after the mixture has been cooled down, it is transported entirely to a decanting flask. Ether is added and the mixture is agitated with a concentrated solution of sodium hydroxide until everything has dissolved. The ethereal solution is then separated, washed with water until it becomes neutral; the ether is distilled off and the citronellal is purified by steam distillation. J. Zimmermaine, Pharm. Tyds. v. Ned. Md. 1928, 293-5.

W. H. Hutchinson & Sons are now established in their new building at 1031 North Cicero ave. New equipment and facilities provide excellent opportunities for the fulfilment of plans for expansion.

Dr. Forst, formerly of Forst Laboratories, is now chemist for Dow Drug Co., Cincinnati.

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Absolute resins, completely soluble in alcohol, noted for their low cost and fine quality.

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A Perfectly Balanced Syrup For Pharmaceutical Preparations

Nulomoline No. 11 is a perfectly balanced syrup of high density, keeps indefinitely, contains no preservative, is colorless and ready for use.

Nulomoline No. 11 is like glycerine in many respects and has long been used in various pharmaceutical preparations.

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For Theatre Sprays

AIR-AROME may be used 2-4 ozs. to 1 gallon of *water*, without the addition of any other product.

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Naturally, you know,

But what does it mean in connection with **Petrolatum Liquidum U. S. P., a Medicinal White Mineral Oil ?**

Medicinal White Mineral Oils were originally produced only from Russian Crude Oil. As usual with oils made of the same crude, the higher the Viscosity, then the higher will be the Specific Gravity. Therefore, formerly it was sufficient to classify and sell Medicinal White Mineral Oils on the basis of the Specific Gravity; and of two such oils, the one with the highest Specific Gravity was the better, provided both oils were equally pure. This method, however, does not hold good when comparing oils of different origin, as then the Specific Gravity figure, as a valuation of the oil as a lubricant for either internal or external purposes, ceases to apply; at least such comparisons are likely to lead to serious mistakes.

ALBINOL, Genuine Russian White Medicinal Oil (Petrolatum Liquidum U. S. P.) refined from Russian Oil has a Saybolt Viscosity of about 325″ at 100°F and a Specific Gravity of about .885. White Medicinal Oils of different origin have, for example, a Specific Gravity of .890 and higher, but a Saybolt Viscosity of only 300″ or less at 100°F. It therefore results that if a different base crude oil is used for the manufacture of Petrolatum Liquidum U. S. P., it is incorrect to judge the value of an oil by the Specific Gravity. It is the **Viscosity** which determines the value of a lubricant; therefore the basis **must** be the Viscosity, and the oil with the highest Viscosity is the most valuable.

Schliemann Companies, Inc.

53 Park Place, New York, N. Y.

REFINERY IN HAMBURG, GERMANY

The 10-Cent Package

(Continued from page 226)

service and overhead would show that these small toilet goods packages can build up a retail drug store's entire volume. Cigar and candy manufacturers already have shown the druggist how to make money on 5c and 10c items.

(6) A sixth and final conclusion is that the manufacturer may very well find in the 10c package additional volume necessary to cut general overhead for increased profit, for the sales costs are small where a dozen chains are solicited as gainst 50,000 individual independent druggists. A final s'ant on this is put clearly in the words of one of the manufacturers who contributed liberally to DRUG MARKETS' survey. He says:

"In selling a 10c size, no manufacturer makes a percentage of profit nearly as great as he does on the larger sizes. The cost of the actual container, and of filling and packaging it, is almost as great as one as the other. This eats into the margin between finished cost and selling price of 10c items so that percentage of profit is very limited in comparison to that of the larger sizes. However, most manufacturers look upon this sale of the 10c size as being added business and so do not charge against it cost of general selling, demonstrations, advertising and such, that would prohibit marketing the 10c product because of the total cost against selling price."

Cold Affects Orange Trees

Ungerer & Co., report severe weather in Grasse Region as seriously harming orange trees and possibly other cultures. Cold weather of unprecedented severity has been reported from all European points and even the French and Italian Rivieras have experienced a six inch snow fall and correspondingly low temperatures. Such conditions along the usually warm and sunny Mediterranean have not been known for many years if indeed they have ever occurred before.

The danger of serious damage to the floral culture of the Grasse region is obvious but Ungerer & Co. report that except for the absolutely certain damage to the orange trees, it is impossible to estimate to what extent other flower crops will be affected.

The orange trees have suffered severely from the freezing weather and a serious shortage of Oil Neroli and other orange flower extractives may be confidently expected. Other crops should be less affected but in the absence of more definite information all that can be said with certainty is that they will at least be later than usual.

The consolidation plans of the National Tin Corp., and the American Tin and Tungsten Co., into the National American Tin Corp., is proceeding. The new company is to have a fully paid capital, divided into 600,000 non-accessable shares of $5. par value, which is to be exchanged on a basis of one share for ten shares of National Tin Corp. or twenty shares of American Tin and Tungsten.

Minox Chemical Co., New York, have placed their advertising accounts with The Artwil Co., New York, advertising agency. Magazines and business papers will be used.

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Sun Bleached under glass from the highest quality crude yellow beeswax obtainable. Especially suitable for the manufacture of toilet preparations of quality, that will keep and not turn rancid or yellow.

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But these difficulties now can be remedied. "INERTO" introduces a new art in bottle sealing. It is an "inert", plastic, resilient liner, inserted in our metal screw caps which *seals* as it inertly *protects* the troublesome fluid. No further need for inner corks!

No matter what your product—let us show you how to seal it.

Bottle Closure Specialists Since 1890

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Price List Changes

Name	Unit	Now	Was
Adams, Blair Corp., Newburgh, N. Y.			
A—Normaloid A, retails $6.00	doz.	$48.00	$32.00
C—Normaloid B, retails $4.00	doz.	32.00	32.00
A—Normaloid C, retails $5.00	doz.	40.00	32.00
Herpicide Company, Detroit, Mich.			
N—Newbro's Herpi-Lay, retails 50c	doz.	4.00	
Hynson, Westcott & Dunning, Baltimore, Md.			
D—Mercurochrome Applicator Bottles, 2% Sol. (3 dram bots)	doz.	1.50	2.00
A—Ovary, whole, Tabs., 5 gr.	doz.	18.00	13.50
A—Ovary, whole, powdered, ozs.	doz.	30.00	24.00
International Laboratories, Rochester, N. Y.			
A—Dare's Mentha Pepsin, retails $1.15	doz.	9.20	9.00
Dr. D. Jayne & Son, Philadelphia.			
Vermifuge	doz.	4.00	
Expectorant, Large	doz.	4.00	
Expectorant, Small	doz.	2.00	
Jaynex	doz.	1.20	
Carminative	doz.	4.00	
N—Bryo-Da (Tonic pill)	doz.	6.00	
N—Lincreme (Cold cream liniment)	doz.	2.40	
Sanative Pills, sugar coated	doz.	2.00	
Kiefer-Stewart Company, Indianapolis, Ind.			
N—Stewart's Antiseptic, 7 oz	doz.	2.75	
16 oz. size	doz.	4.80	
N—Wonder Pomade for Men, retails 25c	doz.	2.00	
Large size, retails 50c	doz.	4.00	
Kimball Bros. & Co., Inc., Enosburg Falls, Vt.			
D—Kendall's Quick Relief, medium, retails 30c	doz.	2.40	2.50
N—Kendall's Pectoral Elixir, small size, retails 15c	doz.	1.20	
D—Old English Black Oil, medium size, retails 30c	doz.	2.40	2.50
Marvell Pharmacal Co., New York.			
N—Semvesco Tablets, retails $2.00	doz.	16.00	
N—Polempco Tablets, retails $1.75	doz.	15.00	
N—Soderseine, retails $3.00	doz.	25.00	
Wm. S. Merrell Company, Cincinnati.			
D—Tetrachlorethylene Caps., 1 cc., boxes 100	each	1.00	1.20
Sharp & Dohme, Baltimore, Md.			
Ephedrine Sulphate Preparations (ff)			
Ephedrine Sulphate Preparations			
D—Capsules, ⅜ gr., 40's	each	1.50	2.00
D—Capsules, ½ gr., 40's	each	2.35	3.50
D—Solution, pints	each	10.00	14.00
Ounce bottles	each	1.00	1.40
Tru-Lax Mfg. Co., Newark, N. J.			
Tur-Lax, chocolate laxative			
Small, retails 10c	doz.	.75	
Medium, retails 25c	doz.	2.00	
Large, retails 50c	doz.	4.00	
N—Tru-Lax Chewing Laxative, retails 15c	doz.	1.20	
Large size, retails 25c	doz.	2.00	
N—Tru-Carb Gum, retails 15c	doz.	1.20	
Large size, retails 25c	doz.	2.00	
X—It Laboratories, Inc., New York.			
N—"X" Tooth Paste, retails 50c	doz.	4.00	

Window Display Installation Bureau, Cincinnati, has retired from the field of national window installation in favor of Window Advertising, Inc. of New York. The Bureau had shown a heavy financial loss ever since inception and stockholders felt that better service could be assured with one national organization located in New York.

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The Drug Market-Place — Wants and Offers

Business Opportunities

IMPORTERS of DRUGS and PHARMACEUTICAL PRODUCTS want offers. Take charge of Patents, Trade-marks, and Licenses to sell Pharmaceutical Specialties. Isaias G. Lopez & Co., Box 899, Bogota, Colombia, S. A.

MANUFACTURERS' REPRESENTATIVE for drug trade throughout Palestine who is interested in getting representation of American firms would like to communicate with American manufacturers. A. Hirshberg, P. O. Box No. 246, Tel. Aviv, Palestine.

A reliable and established GERMAN MANUFACTURER and WHOLESALER of drugs and fine chemicals desires to make an arrangement with American firms for marketing their products in Germany. Representation may either be on a sales basis which this company can handle through a large and well established sales organization or on a basis which will permit them to manufacture the product in their own factory in Germany. Box 750, DRUG MARKETS.

WANTED—Small perfume business in or near New York. Must have some possibilities. Box 747, DRUG MARKETS.

DISTRIBUTORS WANTED for Oil Organum very strong in Thymol and Carvacrol. Interested importers in United States should write Dr. M. H. Danon, Tel. Aviv. Palestine.

German Drug & Chemical Merchants, old established, headquarters Hamburg, with highly developed selling organization in Germany and agents throughout Europe, with large warehouse facilities desire agency for selling Cascara, Honey, Senega Root, and kindred lines. Are also prepared to act as purchasing agents for European chemicals, botanicals drugs, etc. Best references. Address: Sandberg & Schneidewind, Hamburg, Germany.

Help Wanted

SALES CORRESPONDENT—High grade, experienced sales correspondent with initiative, resourcefulness, and sales ability; thorough knowledge of essential oils and vanilla beans and an acquaintance with that trade desirable, but not absolutely required. Good opportunity for competent man. Give age, experience, references, salary expected and full particulars. Box 754, DRUG MARKETS.

IMPORTER, large concern, directly connected with producers French Essential Oils (Lavender, Geranium, Petit Grain, Vetyvert, Bois de Rose, etc.), synthetic aromatics (Terpineol, Ionone, Benzyl Acetate, Phenyl Ethyl Alcohol, etc.), French compounds, etc., wants good agents well versed amongst large soap and perfume manufacturers, commission basis. Box 748, DRUG MARKETS.

Rates—All classifications $1.00 an issue for 20 words or less; additional words 5c each.

Payment must accompany order, add 10 cents if replies are to come to a box number and be forwarded.

DRUG MARKETS
25 Spruce St. New York

REGISTER HERE!

A good way to find the kind of a job you want or have been training for; an equally good way for any manufacturer in the drug trade, whether medicinal, toilet preparation or raw materials, to find a salesman, chemist, plant man, etc., is to register with DRUG MARKETS. No charge is made for this service. You do not have to be an advertiser in "The Drug Market Place" although this would, of course, materially increase your chances of finding what you want.

To register, just address "Registration, DRUG MARKETS." Give full details. Where desired, your name will be kept in full confidence.

Miscellaneous

FOR SALE—Stone factory building. Good light and ventilation. Two story and basement; 15,000 square feet. Room for expansion. Terms. J. T. Lowery, Treasurer, 600 N. Eastern Joliet, Ill.

Experienced WASHINGTON CORRESPONDENT; many years experience drug and chemical trade journals, trade associations and other interests. Can furnish information, publicity, statistical research or any other service. Can keep you posted about latest developments in any Washington business in which you are interested.—Henry C. Hallam, District Natl. Bank Bldg., Washington, D. C.

Situations Wanted

Registered PHARMACIST and Pharmaceutical CHEMIST, 24, well educated, seeks position with responsibility leading to future in pharmaceutical or allied fields. No retail, Box 755, DRUG MARKETS.

CHEMIST, 41, married, desires position with manufacturer of pharmaceuticals, perfumes or toilet preparations to take charge of manufacturing departments and factory employees. 16 years' practical experience. References. Box 752, DRUG MARKETS.

CHEMICAL ENGINEER, junior member American Institute of Chemical Engineers, in position which involved more managerial than chemical ability, is anxious to find one in process or research work or plant operation. Has had two years graduate work and 4½ years varied laboratory experience, research and management. Formerly in charge of analytical and control laboratory of nationally known chemical firm. Excellent references. Box 749, DRUG MARKETS.

CHEMIST, Ph.D., Hollander, desires position as plant chemist. Some years research experience, one year in the United States. Speaks French, German, English. Salary secondary to opportunity for advancement. Excellent references. Box 741, DRUG MARKETS.

BUYER with twelve years purchasing experience in the drug trade primarily in materials entering into the manufacture of cosmetics, hair preparations, both raw materials and equipment, desires a position with a reputable manufacturer. Can show an excellent record with well known manufacturers. Available on April 1st. Box 756, DRUG MARKETS.

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Reliable Used Machinery

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1—Elyria Jacketed Glass Lined Kettle, 500 gallons capacity.
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We can supply you with NEW Glass Lined Storage Tanks, 10, 30, 50 and 100 gals. direct from manufacturer.
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10—Day Sifters and Mixers, sizes A, B, C, D, D-10.
Colton and Stokes Tube Fillers and Tube Closers and Tube Clippers.
Miscellaneous: Copper and Aluminum Kettles, Tanks, Extractors, Pulverizers, Mixers, Pumps, Dryers, Sifters, Drug Mills, Ointment Mills, Powder Fillers, Collapsible Tube Fillers, etc. Send us your inquiries.

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Send us a list of your surplus equipment.

MULFORD TABLETING MACHINE, single punch, good condition, with 33 sets of dies. Cheap. Largest die, three-quarter inch. Box 753, DRUG MARKETS.

Tin Statistics to be Published

The National Metal Exchange is to organize a statistical bureau for the public dissemination of authoritive information in regard to the tin industry, both here and abroad. Announcement of this plan was recently made by Erwin Vogelsang, president of the National Metal Exchange.

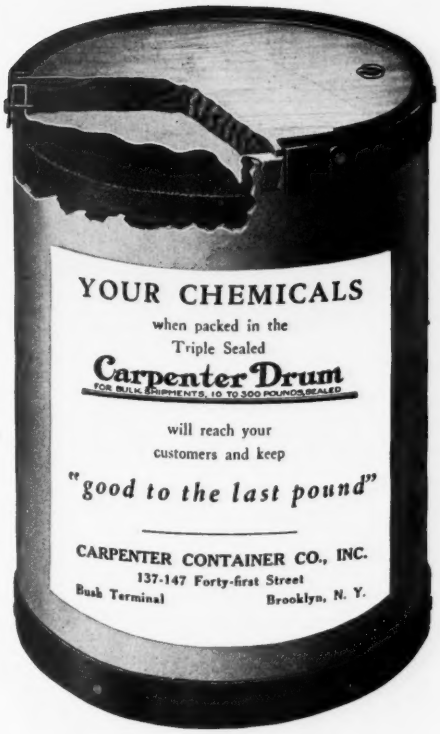
The fact that the United States is the largest consumer of tin makes it of paramount importance that all information and statistics regarding the production and supply be available to those who buy and use tin. The exchange is vitally concerned with the portrayal of basic conditions as to production, shipments and consumption, together with such relevant data as will serve to paint a clear picture of conditions throughout the world from day to day and toward this end the committee on information and statistics of the exchange have been working in close harmony with the Department of Commerce in Washington.

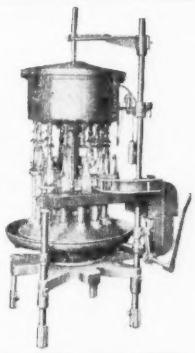
Information as to shipments to the United States will be released shortly as an initial step in this work. It is recognized that it is only through such media can those interested in the metal industry judge as to the future and make use of the facilities of the exchange to the best advantage.

Peoples Drug Earns More

Net earnings of People's Drug Stores, Inc., for 1928 according to preliminary estimates, were $744,000 after all charges and federal taxes, equivalent after allowing dividends on preferred stock to $4.74 a share on 122,625 shares of no-par common stock. Earnings in 1927, on the same share basis, were equal to $3.49 a share on the common.

Sales in 1928 totaled $11,348,645, compared with $8,142,241 in 1927, an increase of $3,206,404, or 39.4%. Business of the company expanded rapidly during 1928. Starting the year with 48 stores, 82 stores were operating on December 31.





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102 BEEKMAN STREET NEW YORK

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A manufacturer of a successful, well established toilet preparation is waiting for the kind of a proposition we are prepared to make.

The toilet preparation that will interest us has a good name, it has shown a consistent growth in business but it also has real opportunities for future business expansion.

For trade marks, good will, patents, etc., of such a preparation we are prepared to pay from $500,000 to $1,000,000 cash. Communications received will be treated with the utmost confidence

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Our plant is equipped with the latest up-to-date automatic machinery to handle every process—plus a triple inspection system to check. Our service is complete.

We manufacture the product in accordance with your formula. We purchase and store the bottles, tubes or other containers. We purchase your labels, cartons, circulars, counter displays and whatever advertising material you pack in each box. We pack the finished product in the display container and then in the shipping cases. We warehouse the goods until shipped. We ship on your order direct to your customer, routing the goods the most economical way. You have no manufacturing details, no labor problems. And our contract price, determined in advance, is usually cheaper than you could do it yourself.

We'll gladly answer any question and submit figures, if desired. Just send us a sample of your product. Or, if you have only an idea and nothing more, we'll develop the formula for you, help with your distribution and sales plan, and give you a complete manufacturing service as described.

Write us to-day.

Strong, Cobb & Company, Inc.
PHARMACEUTICAL CHEMISTS SINCE 1885

83 Central Viaduct
Cleveland, Ohio

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